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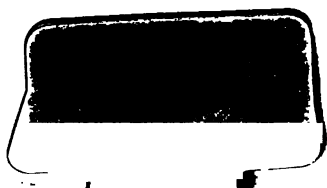
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A  
BOTANICAL GUIDE  
TO THE  
FLOWERING PLANTS,  
FERNS, MOSSES, AND ALGÆ,  
FOUND INDIGENOUS  
WITHIN SIXTEEN MILES OF MANCHESTER;  
WITH SOME INFORMATION AS TO THEIR  
AGRICULTURAL, MEDICINAL, AND OTHER USES.  
BY RICHARD BUXTON;  
TOGETHER WITH  
A SKETCH OF THE AUTHOR'S LIFE; AND REMARKS ON  
THE GEOLOGY OF THE DISTRICT.

LONDON:  
LONGMAN AND CO., PATERNOSTER ROW.  
MANCHESTER:  
ABEL HEYWOOD, 58, OLDHAM STREET;  
AND ALL BOOKSELLERS.  
1849.

*Price Six Shillings.*





## A BRIEF MEMOIR OF THE AUTHOR.

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IN presenting this work to the public, I have to bespeak the indulgence of my readers. The reason why I claim their kind consideration, will sufficiently appear in the following sketch of my life, which I am advised to give instead of a preface to my book.

I was born at Sedgley Hall farm, in the parish of Prestwich, near Manchester, on the 15th day of January, 1786. My father's name was John Buxton, and my mother's maiden name was Ann Houghton. The former came from Bradburn Hall, and the latter from Bonsall, both in the county of Derby. They had a family of seven children, and I was their second son. Before I had arrived at the age of two years, my father became much reduced in circumstances, and had to leave his farm; he then came to reside in Bond-street, Great Ancoats, Manchester, where he followed the occupation of a labourer during the rest of his life.

When quite a child, I went for three months to a dame's school near to my father's house, but I have no recollection of having been taught anything whilst there. At the age of eight years, I went to a Sunday school in Gun-street, Great Ancoats, belonging to St. Paul's church, at that time under the superintendence of Thomas Shaw; I remained here upwards of two years, but I did not attend regularly, and the furthest extent of my learning was being able to distinguish the letters of the alphabet, and to spell words of one syllable.

Being a weakly child, and my parents not being very well able to send me to school, from my earliest days I was accustomed to wander by myself through the fields and brick-yards near where I lived, picking up wild flowers. My chief favourites were the German Speedwell (*Veronica camædris*); the Creeping Tormentil (*Tormentilla reptans*); and the little starry blossoms of the common Chickweed. The pleasure which these simple plants afforded me during infancy, still continues, and in all probability will do, so long

as my life shall last. Common though they may be deemed, they are, and always must be to me, really and truly beautiful.

When about twelve years of age, I went to James Heap's, in Port-street, to learn the trade of a bat-maker; that is, a maker of children's small leathern shoes. With him I continued for about a year and a half, and then went and worked with one James Hyde for several years. At this time I had forgotten what little I had previously learned at the Sunday school; and was quite unable to read, at the age of sixteen years. When at home, I saw the rest of my family able to read, and this caused me very much to regret my want of knowledge; I therefore got a common spelling-book, and determined to teach myself. With great diligence, I soon became master of it; and I then proceeded to read the New Testament. Now, although I could manage to make out the words tolerably well, I did not know how to pronounce them correctly, or to understand their exact meaning; so I procured *Jones's Pronouncing Dictionary*, and went steadily through it from beginning to end. By this means I was enabled not only to read, but also to understand the meaning of what I read, and to speak it pretty correctly. My next books were a *History of England*, and *Goldsmith's History of Greece and Rome*, which I soon became acquainted with, and a few other books. These pursuits occupied all my spare hours, which were not many; for, when trade was brisk, I had to work from six in the morning, to eight or nine at night. My wages at this time were good, being from fourteen to fifteen shillings a week when in full work; these were the highest I ever earned at my trade. For many years past, wages have not only been much lower, but there has scarcely been any work for bat-makers, cloth having for the most part superseded the use of leather, in making the tops of children's shoes.

When I was about the age of eighteen years, I returned to work with my old master, James Heap, as a journeyman. This man was very fond of having a country walk during leisure hours. On such occasions he would often take me along with him, and we then collected and brought home Ground Ivy, Betony, Centaury, Buckbean, Mountain Flax, and other herbs, of which he made diet drinks for himself and neighbours; to the latter of whom he freely and gratuitously gave them. In our excursions both master and man were often much puzzled by meeting with plants which we did not know the names of. To remedy this, and obtain a greater knowledge of plants, I procured *Culpepper's Herbal*, and tried, as well as

I could, to make them out from it. In doing this, I observed what the old herbalist stated of the medicinal properties of plants; and often finding it to be purely fanciful, and quite contrary to my own experience, and at the same time discovering that his description of plants was very rude and imperfect, I soon lost all confidence in the book. Seeing *Meyrick's Herbal* in a shop window, exposed for sale, I purchased it. This work I found far superior to *Culpepper's*. It gave the Linnæan names and descriptions, in addition to the medicinal properties of plants; and from it I learned the first principles of the Linnæan system. This would be about the year 1808.

For several years I continued to compare the plants that I collected with Meyrick's book; but, as it often failed to afford me the information I was in search of, I wished for another book. An old playmate of mine, named William Aiken, informed me that he had an acquaintance, one George Whitehead, who studied botany, and who, as I have since learned, was a friend of the late James Crowther and George Caley. At my request he borrowed *Jenkinson's Flora* for me. On perusing it, I found it a work suited for my purpose, and it enabled me to obtain a knowledge of many plants which I had previously been unable to make out from the two books before alluded to. After having had the book for three months, I was obliged to return it to the owner, and thus left again to the herbals.

In a year or two afterwards I fell in with *Robson's English Flora*, at an old bookseller's shop, and purchased it for three shillings. In it I first found a description of the English grasses; and by its means I became acquainted with most of the plants found growing in the neighbourhood of Manchester. In the year 1814, I purchased a copy of the first edition of *Withering's Botany*. With these two aids I made considerable progress. The next book which I purchased was *Priscilla Wakefield's Introduction to Botany*, from which I had hoped to have gained a more correct knowledge than I then possessed of the descriptive part of the science; but in this I was disappointed. I then procured *Smith's Introduction to Botany*, a work of first-rate merit, and it afforded me all the information I then required on the anatomy, physiology, and structure of plants; it was illustrated by plates, and contained a good glossary of all the technical terms used. From it I obtained much information that was quite new to me at that time.

I still went on for a number of years, taking my solitary walks through the country, without meeting with any other botanist, or

finding a kindred spirit to converse with on my favourite study. This has since surprised me, as I now know that the late Edward Hobson, James Crowther, and many other of the old Lancashire botanists, were at that time making similar excursions to myself. It was my custom carefully to observe living plants on the spots where they grew, and not to make great collections of dried specimens; the latter are, no doubt, essential for the study of the structure and characters of plants, but it has frequently been the custom to collect specimens to such an extent, as to destroy the plant. Many parties have also attempted to learn botany from dried specimens; for myself, I could never look upon a dried specimen with much satisfaction. To obtain a true idea of a plant, let me see it alive and flourishing in the place where it grows, surrounded by all the conditions necessary for its growth. In my eyes, dried specimens look like pallid corpses. Besides a dislike to dead plants, I did not like to take away and destroy living things, which might be enjoyed by others as well as myself.

In the year 1821, I for the most part discontinued making my botanical rambles. This arose from my going to work with a new master, and from my time being very fully occupied, owing to the briskness of trade. But in the spring of 1826, I began again to make frequent excursions. One day in the month of June, in this year, I went to Kersal Moor, and was quietly engaged in botanizing on the back part of it, near the brook, at a place now drained and cultivated, where grew a number of my favourite plants — whilst looking amongst my old acquaintances, I happened to see a person engaged in the same pursuits as myself. I made up to him, and asked him if he were botanizing. He replied, "Yes, I am doing a little in that way." I said that I had paid some attention to the subject myself, it was a study which had afforded me a good deal of pleasure. We walked about together on the moor, talking on botany, and observing the different plants as we went along. He asked me where I lived; I told him, in Manchester, but I was a native of that neighbourhood, having been born at Sedgley. I found him just such a man as I had long wished to meet with, not a mere country herbalist, but an excellent scientific botanist. This was no other person than John Horsefield, hand-loom weaver, of Whitefield, the president of the Prestwich Botanical Society; and now the president of the General Botanical Meetings, held at different places in the county, lying between Clayton, Middleton, Newton Heath, Radcliffe, Eccles, and Manchester; a profound botanist, and well-

read man, worthy to be the successor of the late Edward Hobson, the last president of the Society.

The purposes for which the General Botanical Meetings are held, will be best seen from the following extract from the printed list circulated amongst the members. "As specific discrimination and accuracy in botanical nomenclature, are the chief objects sought to be obtained by the aid of these meetings, all persons who attend are hereby respectfully solicited to bring with them specimens of such plants, either indigenous or exotic, but particularly the former, as they can conveniently procure." The specimens are submitted to the president, who describes them, and then discussions upon them take place. The number of meetings held, generally amounts to about thirty in the course of the year; and the audience consists almost exclusively of working men. No one can give the origin of this society; but its meetings must have been held for near a century back. It is to be lamented, that notwithstanding the increase of population, and the spread of knowledge, the number of people attending these meetings is not now so great as it was forty years ago.

But to resume. I accompanied Horsefield to Hope-square, Sedgley, to see an old botanist, James Percival, who was not then at home, but we went into his garden and looked at his plants. After leaving this place, we parted, and went to our respective homes; however, before we separated, it was agreed between us that we should meet again. Accordingly, in about a week afterwards, I went to Horsefield's house, and made a short excursion into his district with him. He then proposed an excursion to Baguley Moor, and some other parts of Cheshire, which I was well acquainted with; and we arranged to meet at the bottom of Hunt's-bank, Manchester, at seven o'clock in the morning of that day week.

It had been one of the hottest and driest summers that I can remember, and there had been no rain in the neighbourhood for two or three months; but, on the day appointed for our meeting, very heavy rain came on about five o'clock in the morning. I should not have thought of stirring out of doors; but, having made the appointment, I thought it just possible that my friends might come, and I would not on any account disappoint them. Accordingly, I went down to Hunt's-bank, and, after waiting a short time, I met Horsefield and three others coming to meet me. These companions of his were well-known working botanists, namely, James Percival, the elder, of Prestwich, gardener; Thomas Heywood, of Cheetham-Hill, gardener; and John Shaw, of Eccles, gardener. We all went,

in the rain, through Manchester to Chorlton-cum-Hardy. After staying at the last-named place some time, the weather changed, and a fine day ensued. We then crossed over the Mersey at Jackson's Boat, and went to Baguley Moor. My companions were much gratified at what they saw in this place, I having shown them some plants new to them. From thence we went to Hale Moss; and, after having botanized there and in the neighbourhood, we returned to Manchester at dusk, all much pleased with our day's excursion.

I may as well here mention the reason for James Percival making this journey. Horsefield had mentioned to him the interview with me on Kersal Moor; and how he had found out a botanist, unknown to the rest of the Lancashire working-men of science, of the name of Buxton, who was born at Sedgley, and whose father formerly lived at the Hall farm. Percival, it appears, knew my father, and his father had formerly worked for mine. Under these circumstances, he was anxious to see me; and he said, on making my acquaintance, that no kind of weather would have prevented him from coming with Horsefield to see me. During this summer I made several excursions with Horsefield, to Mere Clough, Clifton Moss, and other places.

For several years after this period, owing to a variety of circumstances, I did not pay much attention to the study of botany.

In 1833, I for the first time attended one of the Botanical Meetings before mentioned, held at the house of Andrew Percival; and I there met with my old acquaintances, Horsefield, Heywood, and Percival. Not having seen me for several years, they had concluded that I was dead. I now regularly attended these meetings for some time, and found there many pleasant and intelligent companions. At one of them, soon afterwards held at Blakeley, I became acquainted with James Crowther, whose lively and cheerful manners made such an impression upon me, that I ever afterwards enjoyed as much of his company as I could, until the period of his death, in January, 1847. He was a man of good natural parts, and had a fair acquaintance with several branches of natural history, but his heart was far superior to his head. Hundreds of miles did we wander over the country agreeably together, enjoying the beauties of nature; and more especially watching the growth of plants in the neighbourhood of Chorlton, Withington, Didsbury, and many other parts of Lancashire; and through Northen, Baguley, Cotterill, Mere, and other parts of Cheshire. These were his favourite local-

ities; but I sometimes succeeded in bringing him to Clifton, Pilkington, Greenfield, in Saddleworth, and the higher parts of Lancashire.

Soon after this period, at one of the Botanical Meetings, Horsefield and Crowther agreed that we should make an excursion to Mere Mere, and see the *Limosella aquatica*, *Elatine hexandra*, and a number of other rare plants growing there. Accordingly, a party of ten of us walked down to Mere, and there met George Crozier, of Manchester, saddler, and two others. All the plants he had described, Crowther showed us, and he appeared to enjoy quite as much pleasure in showing them, as we did in having them shown to us. This ramble was one of great interest to us all, but especially to me, as I then first made the acquaintance of the late George Crozier, now, alas! no more; whose thorough love of nature, and kindly disposition, greatly endeared him to me, and who continued, without ceasing, my good friend and faithful companion up to the day of his death. Had his life been prolonged, it was his intention to have assisted in writing the present work.

In the year 1834, I became acquainted with the present father of botany amongst the working men of Lancashire; my ever cheerful and kind-hearted friend, John Mellor, of Royton, near Oldham; who, as a working man, had travelled more over England and Scotland, than any botanist with whom I am acquainted. I first saw him at a meeting in Blakeley, and was much pleased with the rare plants he then showed me. These he had brought from the highlands of Scotland, and other places, and afterwards cultivated in his own garden.\*

I now made several journeys into the mountain limestone district of Derbyshire, and visited the pleasing valleys of the Derwent, the Dove, and the Wye. Here I found many plants, which I saw growing in their *habitats* for the first time; and I was much delighted with the romantic scenery and beautiful streams for which that part of England is so justly celebrated.

In the year 1837, I made the acquaintance of Jethro Tinker, of Staly Bridge, a good botanist and entomologist, and an enthusiastic

\* Since this sketch was written, my venerable and good friend has gone to his long home. After a few days' illness, he was carried off by an attack of English cholera, in the eighty-second year of his age, on the 5th day of October, 1848, having been able to work in his garden nearly up to the time of his death. His funeral was attended by many of his old friends. A full account of it appears in the *Manchester Guardian* of the 11th day of October, 1848.



also, state under what disadvantages and difficulties I have pursued my favourite science, botany.

Originally of anything but a strong constitution, I have now reached the age of sixty-two years; and, although by no means robust, I can yet make a ramble of thirty miles a day, and enjoy the beauties of nature with as much zest as ever I did in my life. True, the pursuit of botany has not yielded me much money — but what, in my opinion is far better, it has preserved my health, if not my life, and afforded me a fair share of happiness.

The operative who lives in a large manufacturing town, sees plenty of the handyworks of his fellow-men in the giant steam-engine, the ingenious mule, which rivals the gossamer in spinning threads, the never-tiring power loom, and the countless other contrivances of mechanical skill which have resulted from the fertile brain of man. He sees much of what is termed the triumphs of science and art, but little of the works of nature. This renders him an intelligent, but, to a certain extent, an artificial man. He also views the vegetable kingdom, especially flowers as seen in the gardens near towns, in a somewhat unnatural state. The gaudy beauties of the flower-garden may strike by their splendid colour, and charm by their novelty — but, for true beauty and grace, they are not to be compared with our wild flowers any more than the natural is to the artificial. Indeed, strictly speaking, many of the tenants of our gardens may be termed partly artificial flowers. By means of innoculation, forcing, and the application of stimulating manures, some of our native flowers can scarcely be recognized with the old stock from which they sprung. And if this be the case with plants so treated in their own climate, how much greater must be the difference with foreign ones, from colder and warmer countries? Nature, however, has put a boundary to this system of artificial flower making, by causing many of them to be barren.

To the poor, as a class, it is to be feared that the possession of land in this country is not generally attainable; but there are still, within a distance of sixteen miles of Manchester, many delightful walks, by pleasant streams and through green woods, in summer time, where they may yet see, in the words of the poet :

“ All nature is a glass reflecting God,  
As by the sea reflected is the sun.”

and I hope that the lords of the soil will yet allow the pent-up dwellers in the crowded city to walk about and view the beauties

of creation — yes, not only permit it, but derive much true pleasure from seeing the sons of toil rationally enjoying themselves in rambling through their domains, and exploring the wonders of nature, after a week of labour. The fields and the woods, although the rich man's heritage, may still be the poor man's flower-garden.

I therefore would venture to request the landowners, at least to preserve the old footpaths which cross their fields and woods, if they should decline to allow fresh ones to be made, like their forefathers of old. My fellow-workmen, living in the back streets and narrow alleys of large towns, I would invite to go into the green fields and fresh air of the country; and, whenever they can, to take their wives and children with them. Above all, I would most earnestly recommend them to avoid doing, or permitting to be done, any annoyance or injury to the property of the owners of the land near to the footpaths, or of parties who may kindly permit them to rove over their fields, or wander through their woods; and thus show that the working man can not only admire the beauties of nature, but also thoroughly respect the rights of property.

During the last forty years, the face of the country around Manchester is, no doubt, greatly changed. However, there yet remain the well-wooded and pleasant valleys of the Etherow and Goyt, and out of the latter a charming little dell at Fog Brook; the picturesque valley of the Tame, by Reddish, through Haughton, and Staly, to the romantic rocks of Greenfield, in Saddleworth. Then there are the quiet dingles of Boggart-hole, Prestwich, and Mere Cloughs; the meadows of Agecroft and Clifton; the vales of the Irwell, Irk, and Medlock; the deep valleys of Healey, Ashworth, Bamford, Bradshaw, Sharples, and many others; the rural villages of Chorlton-cum-Hardy, Didsbury, Northen, and Sale; and lastly, the delightful valley of the Bollin, and Cotterill Clough.

Many persons think that botany is a dry and tiresome science of hard names, which can only be practically studied in spring and summer. This is a great mistake. The true botanist is generally an ardent admirer of all that is good and beautiful in nature. In spring, he wanders up quiet vales by brook sides, listening to the songs of birds, and watching their labours amongst the green leaves, and sees what the great and good Linnæus did, who said truly:

“ Spring clothes the fields, and decks with flowers the grove,  
And all Creation glows with life and love.”

In summer, he enjoys the cool shade of the woods, sees the busy insect world all alive, and finds an abundance of wild flowers. In autumn, he can gather heaths and mosses, and view the golden tints of the landscape. And, even in the depths of winter, there are many of the mosses and lichens to attract his attention. I have often myself experienced, and I trust that many other working men have known the feelings so well described by Samuel Bamford, the Lancashire poet, in the following lines, extracted from his "*Hours in the Bowers*":—

“ By bending dales where groves are seen,  
 By waters clear, and margins green,  
 In dim shed light, or open glade,  
 I wander—or in sunless shade  
 Through hoary woods where moss abounds,  
 By springs and wells with silver sounds,  
 To pastures where the shamrock grows,  
 And bowers which none beside me knows—  
 And often as I lonely walk  
 I hear the mighty spirit talk,  
 From cloud above, from earth below,  
 Where winds do roll, where waters flow;  
 From topmost wave of wildest sea  
 To stillest land and inmost lea.  
 It bids me live, and life to spare;  
 It bids me love, and wrath forbear;  
 It tells me Justice is not blind;  
 It shews me mercy, Oh how kind!  
 It says if I would happy be,  
 Virtue must point the way to me!”

With very few exceptions, the whole of the stations for plants which are mentioned in this work are from my own observation, and where no name is given, they are to be understood as such. Where I have had information afforded by other botanists, to the best of my recollection I have mentioned the names of my informants. The *habitats* of the plants in the neighbourhoods of Astley and Tyldesley, have been kindly supplied by my excellent friend, John Martin; who has, with great good-will, afforded me all the information in his possession, and given me the free use of his M.S. catalogue. My good friend, John Nowell, has also supplied me with valuable information as to the flowering times of many mosses.

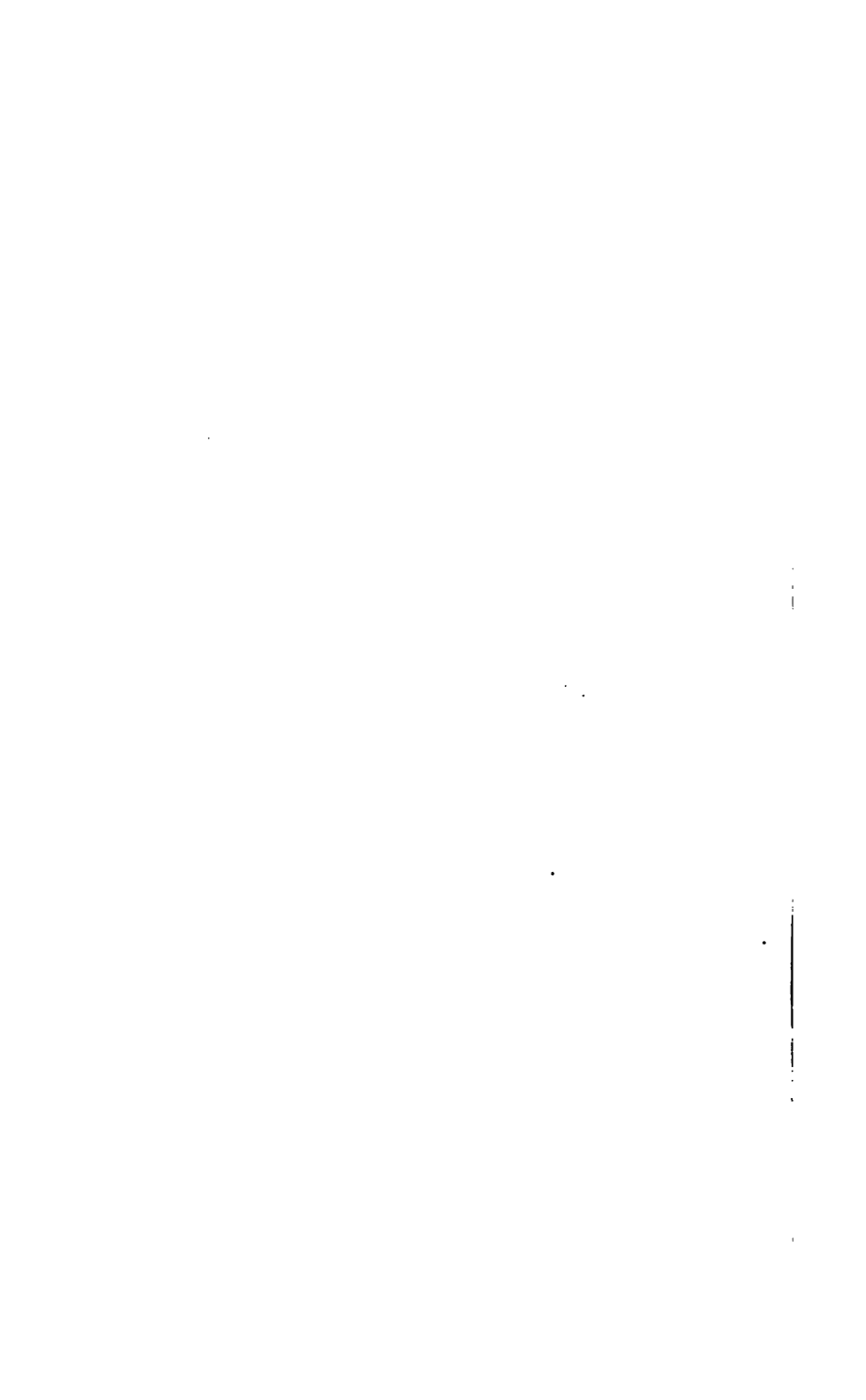
Probably the Natural System would have been preferable to that of Linnæus in the *Flora* of a large county; but, for a local one like the present, I have preferred the latter. However, I have given the natural orders as well. My acquaintance with *Lichines*, *Fungi*,

and *Jungermanniæ*, is not such as to enable me to give sufficient information on those portions of botany; therefore they are omitted from the *Flora*. The list of *Algæ* in the Appendix, has been furnished by Messrs. Williamson and Sidebotham, and published at their request.

Many of my readers will doubtless find imperfections in the book. The learned botanist may laugh at the scraps of poetry, and the old notes of Dr. Withering, and others, as to the properties of plants; and say that, in his opinion, both are nearly useless. For myself, the more I examine the plants, the more I find to admire in the last-named author's notes. But the great bulk of my readers will not be botanists. Amongst them will be working men, the cultivators of the soil, and young people of both sexes. To these, a dry catalogue of plants would be anything but interesting. And if I should succeed in securing the approbation of some of these parties, my labour will not have been in vain.

RICHARD BUXTON,

72, *Gun-street, Great Ancoats, Manchester*,  
February 10, 1849.



# REMARKS

## ON THE

### GEOLOGY OF THE DISTRICT.\*

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As all plants are dependant on the nature of the soil in which they grow for their mineral composition, it is very essential to give a short description of the physical structure of the district. Probably the time will come, when a list of the plants of a neighbourhood will enable a geologist to tell what soils and rocks are in it; or a list of the soils and rocks will enable a botanist to predict what plants he will find. So mutually dependant on one another are the natural sciences. However, it must be confessed that such a state of knowledge is far from being yet arrived at.

The district included in the *Flora* comprises a tract of country extending sixteen miles round Manchester. To a botanist, this neighbourhood presents two leading defects; namely, the absence of maritime and limestone lands, which will fully account for the small number of plants found. It is for the most part in the county of Lancaster, but it runs into a considerable portion of Cheshire, as well as into two small parts of the West Riding of Yorkshire and Derbyshire.

The portion of the country extending in a crescent shape, from Rivington Pike, through Haslingden, Bacup, Blackstone Edge, Stannedge, Woodhead, Kinder Scout, and Whaley Bridge, to Rainow, near Macclesfield, consists of lofty moorlands, varying in height from 1000 to 2000 feet above the level of the sea. These hills are composed of lower coal measures and millstone grit, with the exception of one or two trifling patches of limestone shale. The district lying between the crescent above named and Manchester, is, with the exception of a small tract of new red sandstone, coal measures, and is of a hilly character; whilst the flat country lying

\* These Remarks have been supplied by one of the Author's friends.

to the south and west of Manchester, extending into South Lancashire and Cheshire, is composed of new red sandstone.

The higher parts of the country are free from Drift, as the superficial beds of sand, gravel, and clay, are now termed; and the rocks constituting it mainly influence the character of the vegetation growing upon it: but the two other parts are so enveloped in Drift, that the true geological structure of the district can only be seen in the valleys through which the present streams flow, or in artificial excavations.

But before describing the Drift, it will be necessary to notice the beds of peat which have been formed after that deposit. These are of two kinds; namely, those occupying the high moorlands lying on the lower coal measures, and which, according to Dr. R. A. Smith, are chiefly of an alkaline nature in the warm months of the year; and those found on the Till, occupying the lower country, like Chat Moss, which are generally of an acid nature. This difference is no doubt owing to the decomposition of vegetable matter under dissimilar conditions; and it must certainly exercise considerable influence on the growth of the plants of the two deposits.

As the vegetation of the district is so materially affected by the drift deposits which cover it, I shall give an extract from Mr. E. W. Binney's Paper on those beds, just published in the eighth volume, new series, of the *Transactions of the Literary and Philosophical Society of Manchester*. This author describes them as they are seen near Manchester, in the descending order, as follows:—

CHARACTERS OF DEPOSIT.	Thickness.	LOCALITIES.
No. 1.—A bed of coarse gravel, composed of various sized Azoic, Palæozoic, and Triassic rocks, well rounded, parted with layers of fine sand, and sometimes beds of sand, without pebbles; exhibiting every appearance of having been deposited by water; most frequently stratified, but sometimes unstratified. On the top of this is generally found about three or four feet of silty loam.	0 to 15 Yds.	In the valley of the Irwell, Lower Broughton, and, generally, more or less, in the beds, and on the sides, of the three great valleys near Manchester.
No. 2.—A deposit of sharp forest sand, parted with layers of gravel of same rocks as No. 1, and having every appearance of a regular deposit by water, distinguishable only from No. 1 by its being found at greater elevations, containing more sand, and being, generally, more regularly stratified. It sometimes contains thin beds of Till lying in it.	0 to 25 Yds.	Irlands - o'th - Height, Pendleton, Kersal Moor, Higher Broughton, Prestwich, Cheetham-Hill, Harpurhey, and Crumpsall.

CHARACTERS OF DEPOSIT.	Thickness.	LOCALITIES.
<p>No. 3.—“Till”: a mass of strong brown clay, in which are mingled the same kinds of rocks as those in Nos. 1 and 2; of sizes from six tons in weight, to small pebbles; some rounded and partly rounded, and others quite angular—especially coal measure and magnesian limestone rocks, without any order of deposition—great and small stones being mixed together indiscriminately; quite impervious to water, and well known as valuable brick-clay, and from its being the deposit which yields <i>striated</i> or <i>scored</i> stones. Several beds of fine laminated silt and patches of sand are found in it.</p>	0 to 30 Yds.	The brick-clay of Manchester, Salford, Strangeways, Cheetham, Beswick, Bradford, Ardwick, Openshaw, and Longsight.
<p>No. 4.—A bed of sand, or coarse gravel, having the pebbles (consisting of the same kinds of rocks as Nos. 1, 2, and 3) well rounded sometimes, but not always, occurring under the brick-clay, often stratified, and at other times unstratified. It affords good springs of bright water.</p>	0 to 11 Yds. but seldom above 2 or 3 Yards.	In the valley of the Irwell at Pendleton Colliery, Cheetham, George's-road, Beswick, Victoria Park, and under the Till in the higher part of King-street and Spring Gardens.

Some of the deposits mentioned in the table may not always be found in the perfect order there laid down; they may be wanting at places, especially Nos. 2 and 4, which have often been removed.

At page 197 of the above-named paper, the author, in alluding to the Drift formation, adds, “It is to this last and finishing stroke of the Creator, that the earth chiefly owes its present arrangement of land and water; its beautiful variety of hill and dale; and its different kinds of soils for the support and nourishment of the vegetable kingdom—that wondrous agent for the conversion of brute into organic matter, which thus fits it for food for the use of the animal creation and man himself.”

In the first volume of the *Transactions of the Manchester Geological Society*, the same author shows that the chief part of the district around Manchester, before it was covered with Drift, consisted of upper new red sandstone with slight portions of lower new red sandstone, magnesian marls, and upper red marls, the hard sandstone and limestone rocks, and the cold clays and shales of the coal fields of Manchester and Pendleton—all deposits in their primeval state capable of supplying little nourishment to vegetation.

It is to the period when the Drift was formed, that the greatest part of the soils of this and other countries owe their formation, admixture, and arrangement. Then it was that the earth, to use an agricultural term, underwent the process of a long fallow.



During Professor Agassiz's Glacial Epoch, intense frost and cold split and rent the hardest rocks asunder, immense glaciers ploughed up the sides of the mountains; huge icebergs, freighted with countless varieties of stones, floated on the waters; and torrents scattered and dispersed the *debris* over the plains. Rocks of all ages were thus brought together for the purpose of furnishing the various elements required by the vegetable world. A period of wintry desolation for a time existed, when this part of the earth's surface, from the evidences left, must have been nearly destitute of living inhabitants, whether of animals or plants. Sterile it might be, for a time, like the furrowed field exposed to the winter's frost; but it was for the purpose of ultimately rendering it more fertile. For, most probably, the luxuriant vegetation at present existing on the globe, in a great measure owes its origin to the Drift Epoch, in the same manner as the rich crop of wheat may be traced to the previous fallow.

The older stratified rocks under the district comprised in the *Flora* are belonging to the new red sandstone and carboniferous formations; and Mr. Binney gives them in a paper published in No. 5 of the *Quarterly Journal of the Geological Society of London*, as follows:—

	Thickness in feet.	
1.—Upper red marls, comprising, according to Mr. G. W. Ormerod, M.A., F.G.S.—		} Sir R. I. Murchison's Triassic.
<i>a.</i> Red and variegated marls.....	unascertained	
<i>b.</i> Gypseous and saliferous marls.....	800	
<i>c.</i> Water-stones .....	440	} Permian.
2.—Bunter sandstein, or upper new red sandstone, <i>proved to be*</i> .....	600	
3.—Red and variegated marls, containing thin beds of limestone, full of magnesian limestone fossils, <i>maximum</i> .....	210	
4.—Lower new red sandstone, <i>proved to be*</i> .....	120	} Palæozoic.
5.—Coal measures, consisting of—		
<i>a.</i> Upper coal field .....	1,560	
<i>b.</i> Middle coal field .....	2,910	
<i>c.</i> Lower coal field, including the millstone grit.	2,130	

The good meadow soils, composed of rich loam based on sand and gravel, and forming the beds of all the valleys and near to the streams flowing in them, in the district described, consist of Drift No. 1.

Most of the light sandy soils covering the tops of hills of moderate elevation, like those of Bowdon, Stockport, Harpurhey, Crumpsall,

\* Both these deposits in many places are, doubtless, of much greater thickness.

Prestwich, Kersal Moor, and Pendleton, are composed of Drift No. 2.

The deposit of Till, No. 3, is very general in the district; and forms the base of all the low mosses in the vicinity of Manchester. It also constitutes most of the cold clay lands full of old pitsteads. Both these localities, but especially the latter, are good stations for *Algæ*, *Carices*, and other plants requiring a large supply of silica.

Cotterill Clough is composed of water-stone. Alderley Edge, part of Fog Brook, and that part of Clifton near the aqueduct, are bunter sandstein. The valley of the Goyt; that of the Etherow up to near Woolley Bridge; that of the Tame up to and near Staly; that of the Roche and its tributaries, Healey, Ashworth, and Bamford Cloughs; and those of Holcome, Bradshaw, and Sharples are in lower coal measures. Kinder Scout, Roe Cross, Tintwistle, Seal Bark, and Greenfield in Saddleworth, are on millstone grit.



## ABBREVIATIONS.

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- ADANS.—Adanson.  
A.—Annual.  
BAB.—Mr. Babbington's *Manual of British Botany*.  
BELL SALT.—Dr. Bell Salter.  
BENTH.—Bentham.  
B.—Biennial.  
CURT.—Curtis' *Flora Londinensis*.  
D. C.—De Candolle.  
DESF.—Desfontaines.  
EHRH.—Ehrhart.  
E. B.—*English Botany*.  
E. B. S.—*Supplement to English Botany*.  
GAERTN.—Gaertner.  
GOOD.—Goodenough.  
HOOK.—Sir William Hooker's *British Flora*.  
HUDS.—Hudson's *Flora Anglica*.  
JACQ.—Jacquin.  
LAM.—Lamarck.  
LEIGHT.—Leighton's *Shropshire Flora*.  
LEJ.—Lejeune.  
MILL.—Miller.  
MURR.—Murray.  
N. O.—Natural Order.  
P.—Perennial.  
R. BR.—Dr. Robert Brown.  
S.—Shrub.  
SALISB.—Salisbury.  
SCOP.—Scopoli.  
SIBTH.—Sibthorpe.  
SM.—Sir. J. E. Smith's *English Flora*.  
SPRENG and SPR.—Sprengel.  
SW.—Swartz.  
TEN.—Tennant.  
T.—Tree.  
W. and N.—Weike and Nees.  
WIGG.—Wiggers.  
WILLD.—Willdenough.  
W., WITH., WITHER.—Notes to Dr. Withering's  
*Arrangement of British Plants*, 6th edition.

Can it be believed that Nature bestowed beauty on the foliage of a flower but with a view to please? The fruit might be produced in the same process without any richness or diversity of colour. No other animals are sensitive of their grace but the human, and yet the austere man of business, or the vain man of pleasure, will arraign another with a face of importance for his admiration of a flower,—he calls the taste trifling and useless. But is not a refusal to be pleased with such appearances, like the malignant unthankfulness of a sullen guest, who refuses to taste the most delicious dainties prepared for his entertainment?—DR. V. KNOX.

## CLASS. DIANDRIA.

### ORDER. MONOGYNIA.

#### VERONICA. LINN. N. O. SCROPHULARINEÆ.

1. V. SERPYLLIFOLIA. L. Paul's Betony. Thyme-leaved Speedwell. E. B. 1075. May—July. P.

Cultivated fields and roadsides. Very common.

2. V. SCUTELLATA. L. Marsh Speedwell. E. B. 782. July—August. P.

Moist boggy situations. By the side of a pit, about a quarter of a mile below Bowdon Church. In an old pitstead, near the Three-lanes End, near Chorlton. In a pit, about half a mile south of Withington Old Hall. Various places, near Leigh. Hale Moss, and near Belle Vue. var. *β. pubescens*, on Hale Moss.

3. V. ANAGALLIS. L. Long-leaved Water Brooklime. E. B. 781. July—August. P.

By the side of a pit, nearly opposite New Hall Green, near Baguley. In a ditch, on the right-hand side of the road leading from New Hall Green to Ringway; and in other places near New Hall Green. Common, near Leigh.

4. V. BECCABUNGA. L. Brooklime. E. B. 655. June—August. P.

Very common in wet ditches, and running streams.

The leaves are mild and succulent, and are eaten in salads early in the spring. Cows, goats, and horses eat it; swine refuse it. W. 18.

5. V. OFFICINALIS. L. Common Speedwell. E. B. 765. June—July. P.

Very common in dry heathy situations. Reddish Vale. Marple Vale. Near Hough End. Kersal Moor. About Bowdon and Dunham.

The leaves have a slight degree of astringency and bitterness to the taste. An infusion of them is recommended by Hoffman, as a substitute for tea; but it is more astringent and less grateful. It is eaten by cows, sheep, goats, and horses; swine refuse it. W. 16.

6. V. MONTANA. L. Mountain Germander Speedwell. Mountain Bindwort. E. B. 766. May—July. P.

Near Manchester. In Hough End Wood. Barlow Wood. Mere Clough. Boggart-Hole Clough. Reddish Wood. Woods in Marple Vale. Various other places.

7. *V. CHAMÆDRYS*. L. Germander Speedwell. Wild Germander.  
E. B. 623. May—June. P.

Hedge-banks, and meadows. Everywhere.

The leaves are a better substitute for tea than those of the *V. officinalis*, being more grateful and less astringent. Cows and goats eat it; sheep, horses, and swine refuse it.  
W. 20.

“Not for thy azure tint, though bright,  
Nor form so elegantly light,  
I single thee, thou lovely flower,  
From others of the sylvan bower.  
Thy name alone is like a spell,  
And whispers love in ‘Speed thee well.’”

8. *V. HEDERIFOLIA*. L. Ivy-leaved Speedwell. E. B. 784. May  
—June. A.

In cultivated fields. Abundant, especially near Chorlton and Withington.

9. *V. AGRESTIS*. L. Germander Chickweed. Procumbent Field  
Speedwell. Green Field Speedwell. E. B. S. 2603. April—  
October. A.

A common weed in all cultivated ground.

Two varieties of this species I have noticed, one with white and the other with pink flowers, the latter in the garden of Mr. John Shaw, near Eccles. It has the capsules densely pubescent; in which particular, together with the colour of the flowers, it differs from the ordinary state of the plant.

10. *V. POLITA*. FRIES. Grey Field Speedwell. E. B. 783. April  
—October. A.

A garden weed in Victoria Park, growing in company with *V. AGRESTIS*. Plentiful, as a garden weed, in Prestwich.

11. *V. BUXBAUMII*. TEN. Buxbaum's Speedwell. *V. FILIFORMIS*, Johnstone's Flora of Berwick-on-Tweed. E. B. S. 2769.  
April—October. A.

I found this plant during the year 1847, in considerable quantity, in a lane at Sale.

12. *V. ARVENSIS*. L. Wall Speedwell. Chickweed Speedwell.  
E. B. 734. April—July. A.

On walls; and in cultivated fields. Common.

## PINGUICULA. LINN. N. O. LENTIBULARIÆ.

1. *P. VULGARIS*. L. Butterwort. Yorkshire Sanicle. E. B. 70.  
June—July. P.

In boggy situations in the hilly districts beyond Bury, Rochdale, and about Saddleworth. At Seal-Bark, near Greenfield.

If the fresh gathered leaves are put into a filter or strainer, through which warm milk from the rein-deer is poured, and the milk is set by for a day or two to become acescent, it acquires consistence and tenacity; and the whey does not separate, nor does the

cream. In this state it is an extremely grateful food, and as such is used by the inhabitants of the north of Sweden. There is no further occasion to have recourse to the leaves, for half a spoonful of this prepared milk, mixed with fresh warm milk, will convert it to its own nature; and this again will change another quantity of fresh milk, and so on without end.—*LINNÆUS*. The plant is generally supposed to be injurious to sheep, occasioning a disease which farmers call the rot. But it may be made a question whether the rot in sheep is so much owing to the vegetables in marshy grounds, as to a flat insect called a fluke, (*Fasciola hepatica*.) which is found in these wet situations adhering to the stones and plants, and likewise in the livers and biliary ducts of sheep that are affected with the rot. From experiments made on purpose, and conducted with accuracy, it appears that neither sheep, cows, horses, goats, nor swine, will feed upon this plant. *W*. 23.

### UTRICULARIA. LINN. N. O. LENTIBULARIÆ.

1. *U. VULGARIS*. L. Greater Bladderwort. E. B. 253. June—August. P.

Seaman's Moss pits, near Altrincham. In a pit on the right-hand side of the Warrington road, about a hundred yards beyond the sixth mile-stone.

2. *U. MINOR*. L. Smaller Bladderwort. E. B. 254. June—August. P.

Upon Hale Moss, plentifully. Carrington Moss.

*M. Hayne*, of Berlin, has made the observation that the vesicles at the roots of each of these species consist of a transparent, tough, horny, and elastic membrane, and are furnished with an aperture, closed by a lid that only opens outwards. Before the flowers appear the vesicles are filled with water; but when the plant brings forth the scape, and approaches the time of flowering, the water disappears, and, instead of it, air is secreted in them, by which means the plant rises to the surface of the water; so that thus the flowers may unfold in the open air. But when the time of flowering is over, and the seeds have arrived at perfection, the vesicles again fill with the former fluid, and the plant sinks to the bottom. *W*. 25.

### LYCOPUS. LINN. N. O. LABIATÆ.

1. *L. EUROPÆUS*. L. Gipsy-wort. Water Hore-hound. E. B. 1105. July—August. P.

Near Hough End Hall, and Jackson's Boat. In Gilda-brook Lane, near Eccles, in an old pit-stead. Douglas Green, in a ditch near the chemical works of Mr. Wilson. Near Leigh. Frequent about Sale, near Chorlton; Reddish Mills; and various other places.

It dyes black. The juice gives a permanent colour to linen, wool, and silk. It is said that travelling gipsies stain their faces with it. *W*. 26.

### CIRCÆA. LINN. N. O. ONAGRARIÆ. JUSS.

1. *C. LUTETIANA*. Enchanter's Nightshade. E. B. 1056. June—August. P.

Moist shady woods; very common. Left bank of the Irwell, near Broughton Ford. Hough End. Mere Clough. Boggart-hole Clough. Arden Wood in Reddish Vale. Marple Wood.

*CIRCÆA*. Poetically named after the enchantress Circe. The genus grows in damp, shady places, where shrubs fit for incantations were formerly supposed to be found. The



Greeks had a plant named *Circaea*. All the species are easily cultivated, and are curious on account of their singular flowers.—*Encyclopædia of Plants*. 27.

2. **C. ALPINA.** Alpine, or Mountain Enchanter's Nightshade.  
E. B. 1057. June—August. P.

In a hollow called Wicken-hole, near Seal-bark, Greenfield. (Mr. John Mellor.)

var. ***β. intermedia.*** D. C.

In a wood on the left bank of the river Tame, near Arden Mill, Reddish Vale. In Bredbury Wood, near Hyde. Cotterill Wood, plentiful. Philips's Wood, Pilkington. Woods near Marple, abundant.

**FRAXINUS. LINN. N. O. OLEINEÆ.**

1. **F. EXCELSIOR. L.** Ash. E. B. 1692. May—June. T.  
In woods. Common.

**LEMNA. LINN. N. O. PISTIACEÆ.**

1. **L. MINOR. L.** Lesser Duck-weed. E. B. 1095. June—July.  
A.

Stagnant water, everywhere.

2. **L. GIBBA. L.** Gibbous Duckweed. E. B. 1233. June—  
August. A.

In a pit near Eccles. (Mr. John Shaw.)

3. **L. POLYRHIZA. L.** Greater Duckweed. E. B. 2458. A.

In a pit near Timperly Bridge, Duke of Bridgewater's canal. In a pit near Jackson's Boat; and in another situate about a mile north-west of Withington Old Hall, and various other places.

4. **L. TRISULCA. L.** Ivy-leaved Duck-weed. E. B. 926. June. A.

Common about Chorlton and Withington. Near Moston; and in many other places.

**CLADIUM. SCHRAD. N. O. CYPERACEÆ.**

1. **C. MARISCUS. B.** Twig Rush. *Schoenus Mariscus.* E. B. 950. June—July. A.

On the borders of Rosthern Mere, Cheshire.

## DIANDRIA. DIGYNIA.

### ANTHOXANTHUM. LINN. N. O. GRAMINEÆ.

1. A. ODORATUM. L. Sweet-scented Vernal Grass. E. B. 647.  
May—June.

Meadows and pastures, everywhere.

The fragrance of new hay is principally owing to this grass. It contains a considerable amount of saccharine matter, which renders it nutritious to cattle, and hence valuable to farmers. This is one of the earliest of our grasses, and is said by Linneus to occasion the delightful smell of new made hay. Mr. Curtis says that the leaves rubbed betwixt the fingers, impart a grateful odour. Boccone says that distilled water is prepared from it, as the vehicle of some perfumes. If it be gathered whilst in blossom, wrapped in a paper, and carried in the pocket, it retains the smell of new mown hay for a long time. Cows, goats, sheep, and horses eat it. W. 98.

## TRIANDRIA. MONOGYNIA.

### VALERIANA. LINN. N. O. VALERIANEÆ.

1. V. OFFICINALIS. L. Great Wild Valerian. E. B. 698. June  
—August. P.

Moist woods. Sides of rivers and ditches. Common.

The root has a strong, and not agreeable smell; its taste is warm, bitterish, and subacid; it communicates its properties to wine, water, or spirit. Cats are delighted with the roots. Rats are said to be equally fond of them. Cows eat the leaves; sheep are not fond of them. The young leaves of (*V. Locusta*) are eaten as salad in spring and autumn, and are very little inferior to young lettuce. Cattle also eat it. W. 100.

2. V. DIOICA. L. Small Marsh Valerian. E. B. 628. May—  
June. P.

Marshy situations, not unfrequent. Near Clayton Bridge, Medlock Vale. In a boggy meadow near Reddish Mill. Hale Moss. Rosthern Mere.

### VALERIANELLA. MOENCH. N. O. VALERIANACEÆ.

1. V. OLITORIA. MOENCH. FEDIA OLITORIA. SM. and HOOK.  
VALERIANA LOCUSTA. LINN. Common Corn Salad, or Lamb's  
Lettuce. E. B. 811. May—June. A.

Cultivated fields and hedge banks. Not uncommon.

2. V. DENTATA. DEITR. FEDIA DENTATA. SM. and HOOK.  
Smooth Narrow-pointed Corn Salad. E. B. 1370. July—  
August. A.

Corn-fields about Chorlton and Withington; not uncommon. Also about Bowdon.

3. *V. CARINATA*. LOISEL. *FEDIA CARINATA*. HOOKER. Carinated Lamb's Lettuce. E. B. 1370. June—July. A.

This plant annually makes its appearance in the garden of Mr. John Horsefield, at Whitefield, Pilkington.

### CROCUS. LINN. N. O. IRIDEÆ.

1. *C. VERNUS*. WILLD. Purple Spring Crocus. E. B. 344. April. P.

It is found in a meadow belonging to Agecroft Farm, about three quarters of a mile from Agecroft Bridge.

2. *C. NUDIFLORUS*. SM. Naked Flowering Crocus. E. B. 491. September. P.

Common in the neighbourhood of Manchester. In a meadow on the right bank of the Mersey, about three quarters of a mile below Northern Ferry. On the right bank of the Mersey, about half a mile below Jackson's Boat. At the place where the Hough End brook falls into the Mersey. In a field about a quarter of a mile south-west of Prestwich Church, in great abundance. Also in a field near the upper end of Mere Clough. In Royton, Thornham, and Middleton, plentifully.

" Say, what impels, amidst surrounding snow  
Conceal'd, the Crocus' flamy bud to grow ?  
Say ; what retards, amidst the summer's blaze,  
Th' autumnal bulb, till pale, declining days ?

" The God of seasons, whose pervading power  
Controls the sun, or sheds the fleecy shower :—  
He bids each flower his quick'ning word obey,  
Or to each lingering bloom enjoins delay."

### IRIS. LINN. N. O. IRIDEÆ.

1. *I. PSEUD-ACORUS*. L. Yellow Water Iris, or Corn-flag. E. B. 578. June—July. P.

Ponds and marshy situations. Very common.

Mr. W. Skrimshine has discovered that the seeds afford a substitute for foreign coffee, being roasted in the same manner ; they resemble it in colour and flavour, but have something more of a saccharine odour, approaching to that of extract of liquorice. W. 106.

### RHYNCOSPORA. VAHL. N. O. CYPERACEÆ.

1. *R. ALBA*. VAHL. *SCHÆNUS ALBUS*. LINN. White Beak-rush. E. B. 985. July—August. P.

On all mosses in the neighbourhood of Manchester. Carrington Moss. White Moss. Clifton Moss. Chat Moss, and Lindow Common.

## SCIRPUS. LINN. N. O. CYPERACEÆ.

1. S. LACUSTRIS. L. Lake Club-rush. Bull-rush. E. B. 666.  
July—August. P.

Rosthern Mere, north-west border.

When fodder is exhausted, cattle will live upon it. Cottages are sometimes thatched, and pack-saddles stuffed with it. Bottoms of chairs are very commonly made of this rush. Goats and swine eat it. W. 114.

2. S. SETACEUS. L. Bristle-stalked Club-rush. E. B. 1693.  
July—August. P.

Moist gravelly places. Not unfrequent. Upon a steep bank opposite the reservoir, Mere Clough. At Sailor's Shore, between Pilkington and Ratchliffe. Boggart-hole Clough.

3. S. SYLVATICUS. L. Wood Club-rush. E. B. 919. July. P.

Moist woods and banks of rivers. Common. Lower part of Mere Clough, near the reservoir, plentifully. Red-Brow Wood, about a mile and a half below Nothern; and near the Ferry opposite Nothern. In Reddish Vale, and many other places.

4. S. CÆSPITOSUS. L. SM. ELEOCHARIS CÆSPITOSA. HOOK.  
Scaly-stalked Spike-rush. E. B. 1029. June—July. P.

All mosses in the neighbourhood of Manchester. Carrington Moss. Chat Moss, Clifton Moss, and White Moss.

5. S. FLUITANS. L. and SM. ELEOCHARIS FLUITANS. HOOK.  
Floating Spike-rush. E. B. 216. June—August. P.

In an old pit situate about half a mile south of Withington Old Hall. Baguley Moor.

## ELEOCHARIS. BR. N. O. CYPERACEÆ.

1. E. PALUSTRIS. BR. SCIRPUS PALUSTRIS. L. Creeping Spike-rush. Marsh Club-rush. E. B. 131. June—July. P.

Ponds and Marshes. Common. Hale Moss. Pits near Withington.

2. E. ACICULARIS. SM. Least Spike-rush. E. B. 749. July—August. P.

On the borders of Mere Mere, Cheshire. Nearly a quarter of a mile below the New Hall, Worsley. About pits half a mile on this side Knutsford. Houghton mill-dam, between Winwick and Poulton (Dr. Wood).

## ERIOPHORUM. LINN. N. O. CYPERACEÆ.

1. E. VAGINATUM. L. Hare's-tail Cotton-grass. E. B. 873.  
March—May. P.

All mosses about Manchester.

2. *E. POLYSTACHION*. L. SM. HOOK. *E. POLYSTACHION*, var.  
 γ. BAB. Broad-leaved Cotton-grass. E. B. 563. April—June. P.

All mosses about Manchester.

A doubtful species. The breadth of the leaves depending upon the particular situation in which the plant grows, by which it becomes more luxuriant.

3. *E. AUGUSTIFOLIUM*. ROTH. SM. HOOK. *E. POLYSTACHION*.  
 var. α. BAB. Common Cotton-grass. E. B. 564. April—  
 May. P.

All mosses about Manchester.

## NARDUS. LINN. N. O. GRAMINEÆ.

1. *N. STRICTA*. L. Common Mat-grass. E. B. 290. June. P.

Moors and heaths, in great abundance.

This grass is extremely abundant on some of the moorlands, and especially on Rooley Moor, where it, along with *Juncus squarrosus*, constitutes the entire herbage of scores of acres.

## CLASS. TRIANDRIA.

### ORDER. DIGYNIA.

## ALOPECURUS. LINN. N. O. GRAMINEÆ.

1. *A. PRATENSIS*. L. Meadow Foxtail-grass. E. B. 759. May  
 —June. P.

Meadows and pastures. Very common.

*A. pratensis* is one of the best of meadow grasses, possessing the three great requisites, quality, quantity, and earliness, in a superior degree to any other. It is often fit for the scythe by the middle of May.—*Ency. Plants*. 58. Sheep, horses, and goats eat it. Cows and swine are not fond of it.—*Linn*. But Dr. Pulteney says, this is the most grateful of all grasses to cattle. There is, however, one circumstance which will be a great impediment to its general cultivation, viz., the depredations of the larvæ of a species of *Musca*, which devour the seed so much, that in many spikes scarcely one will be found perfect. These larvæ are the prey of the *Cimex campestris*, whose rostrum seems peculiarly formed for searching the husks of the grasses. *A. geniculatus*, and most of the other species of this genus (*A. agrestes* excepted) are valuable grasses, both for hay and pasture. W. 174.

2. *A. AGRESTIS*. L. Slender Foxtail-grass. E. B. 848. July. A.

Cultivated fields, occasionally. During the year 1847 it was found in considerable quantity in a field of Italian rye-grass, in Withington. Also in a meadow at Staly-Bridge.

3. *A. GENICULATUS*. L. Floating Foxtail-grass. E. B. 1250.  
 June—July. P.

Sides of pits and marshy situations. Common.

4. **A. FULVUS. SM.** Orange-spiked Foxtail-grass. E. B. 1467.  
July. P.

Sides of ponds and ditches. Border of Mere Mere, plentiful.

**PHALARIS. LINN. N. O. GRAMINEÆ.**

1. **P. CANARIENSIS. L.** Canary-grass. E. B. 1310. July. A.

Cultivated fields and waste places. Occasionally.

It is often cultivated for the sake of the seeds, which are found to be the food for the canary, and other small birds. Not properly a native, but is become naturalized, though originally from the Canary Islands. W. 165.

2. **P. ARUNDINACEA. L.** Reed Canary-grass. E. B. 402. July  
August. P.

Sides of ponds, ditches, and banks of rivers. Common.

**PHLEUM. LINN. N. O. GRAMINEÆ.**

1. **P. PRATENSE. L.** Common Cat's-tail-grass. Timothy-grass.  
E. B. 1076. August. P.

Meadows and pastures. Very common.

Cows, horses, and goats eat it. Swine refuse it. Dr. Pulteney says, that notwithstanding the character which this grass acquired from Le Rocque's recommendation, sheep dislike it; neither are cows or horses fond of it. But Lerra says, it affords an excellent pasture for horses. A hard grass, of little value for cattle. W. 172.

**MILIUM. LINN. N. O. GRAMINEÆ.**

1. **M. EFFUSUM. L.** Spreading Millet-grass. E. B. 1106. June  
July. P.

Damp shady woods. Not very common. Cotterill Wood, plentiful. Marple Wood, and others in the same neighbourhood, plentiful. Reddish Wood, and several other places in Reddish Vale, abundant. Atherton Park, near Leigh, plentiful.

Derived by some from mille, a thousand, on account of its numerous grains; by others, from mil, the Celtic for a pebble, in reference to the hard shining nature of the grains.—*Ency. Plants*, 53.

**ARUNDO. LINN. N. O. GRAMINEÆ.**

1. **A. CALAMAGROSTIS. L. CALAMAGROSTIS LANCEOLATA.**  
**HOOK.** Small Reed. E. B. 2159. June—July. P.

Moist woods and boggy situations. Margin of Roathern Mere, plentiful. Big Wood, near Staly Hall. Mere Clough, abundant. Astley, near Leigh.

2. *H. LANATUS*. L. Meadow Soft-grass. E. B. 1169. June—July. P.

Woods, meadows, and pastures. Abundant.

This grass, though vegetating rather late in the season, produces an abundant crop; but it is not very agreeable to cattle, and makes a soft, spongy hay, very unfit for horses. It abounds chiefly in light and moist soils, such as turf or peat land. A plot of it, sown by the writer of this, was destroyed by a long frost.—*Mr. Swayne*.

#### ARRHENATHERUM. BEAUV. N. O. GRAMINEÆ.

1. *A. AVENACEUM*. BEAUV. *AVENA ELATIOR*. L. *HOLCUS AVENACEUS*. SM. Oat-like Soft-grass. Tall Oat. E. B. 813. July—August. P.

Hedge banks and pastures. Plentiful.

#### SETARIA. BEAUV. N. O. GRAMINEÆ.

1. *S. VIRIDIS*. BEAUV. *PANICUM VIRIDE*. L. Green Panic-grass. E. B. 875. July—August. A.

Found by Mr. J. Shaw, near Eccles, during 1846, sparingly; abundantly, during 1847.

#### POA. LINN. N. O. GRAMINEÆ.

1. *P. PRATENSIS*. L. Smooth-stalked Meadow-grass. E. B. 1073. June. P.

Meadows, pastures, and hedge banks. Common.

One of the most excellent of grasses for the farmer.

2. *P. TRIVIALIS*. L. Roughish Meadow-grass. E. B. 1072. June—July. P.

Moist meadows, sides of ditches, and shady places. Very common.

This, Curtis considers one of our best meadow and pasture grasses, especially for moist soils and sheltered situations; on dry exposed situations it is not productive, and, as Sinclair observes, dies off in the space of four or five years. Contrary to what is the case in almost all the other grasses, the hay of this species is of most value cut when the seed is ripe.—*Ency.* 67.

3. *P. NEMORALIS*. L. Wood Meadow-grass. E. B. 1265. July. A.

Side of a bridge near Warrington (Mr. W. Wilson). Plentiful on a shady ditch bank, about half way between Jackson's Boat and Northen.

4. *P. ANNUA*. L. Annual Meadow-grass. E. B. 1141. March—December. A.

Meadows, pastures, and waste places. Everywhere.

A very nutritious grass, but not much cultivated in this district.

## GLYCERIA. R. BR. N. O. GRAMINEÆ.

1. G. AQUATICA. SM. POA AQUATICA. L. HOOK. Reedy Sweet-grass. E. B. 1315. July—August. P.

Sides of ponds, ditches, and canals. Seaman's Moss-pits. Canal side, near Morley's Bridge, Astley. Similar situations at Monton Green, Timperley Bridge, and Dr. White's Bridge. Also in Moston mill-dam.

It is an extremely useful grass to sow upon the banks of rivers or brooks. Horses, cows, and sheep are exceedingly fond of it. (It is subject to the attacks of the little fungus *Uredo longissima*, which appears on the leaves and stems in long brown-coloured stripes). W. 199.

2. G. FLUITANS. R. BR. FESTUCA FLUITANS. L. POA FLUITANS. HOOK. Floating Sweet-grass. E. B. 1520. July—August. P.

Ditches and boggy margins of ponds. Abundant.

The seeds are small, but very sweet and nourishing. They are collected in several parts of Germany and Poland, under the name of Manna Seeds, and are esteemed a delicacy in soups and gruels, upon account of their nutritious quality and grateful flavour. When ground to meal, they make bread very little inferior to that in common use from wheat. The bran separated in preparing the meal is given to horses that have the worms; but they must be kept from water for some hours afterwards. Geese are very fond of the seeds, and well know where to look for them. Horses and swine will run considerable risks to get at it. W. 221.

## TRIODIA. R. BR. N. O. GRAMINEÆ.

1. T. DECUMBENS. BEAUV. FESTUCA DECUMBENS. L. Decumbent Heath-grass. E. B. 792. July. P.

Woods, moors, heaths, and pastures. Plentiful. Kersal Moor. Hale Moss. Boggart-hole Clough. Rough pastures in the hilly districts, plentiful. Frequent about Leigh.

## BRIZA. LINN. N. O. GRAMINEÆ.

1. B. MEDIA. L. Common Quaking-grass. E. B. 340. July. P. Meadows and pastures. Not unfrequent. Marple Vale, plentiful. Reddish Vale. About Ringway, near Eccles. Kersal Moor. Shakerley, near Leigh.

Cows, sheep, and goats eat it. If a seed be carefully dissected in a microscope, with a fine lancet, the young plant will be found with its roots and leaves pretty perfectly formed. A grass of no value as a pasture grass, but only as it grows on such wet parts as better grasses would not grow on. Such places should be drained and manured, and then the herbage would soon be changed.—*Mr. Swayne*.

## DACTYLIS. LINN. N. O. GRAMINEÆ.

1. D. GLOMERATA. L. Rough Cock's-foot-grass. E. B. 335. July—August. P.

Woods, meadows, and pastures. Abundant.

Horses, sheep, and goats eat it; cows often refuse it. Thrives in the shade and under



the drippings of large trees. A grass rather coarse, but very productive, especially in leaves, and is not disliked by cattle, unless when growing on rank soils. W. 211.

### CYNOSURUS. LINN. N. O. GRAMINEÆ.

1. C. CRISTATUS. L. Crested Dog's-tail-grass. E. B. 316.  
July—August. P.

Meadows and pastures. Plentiful.

The leaves of this grass are of the shortest growth of any of the pasture grasses; but they grow very close together in great abundance, and are very palatable to cattle, particularly to sheep. It is, therefore, proper to be sown in fields intended for sheep walks, but by no means as a meadow or hay grass. The straws of this grass are remarkably hard and tough, and as they shoot up at a season when the leaves of all the grasses are very plentiful, they are not cropped by cattle, but are suffered for the most part to stand and perfect their seeds, which seeds afford a scanty subsistence to pigeons at a season when their other food is very scarce.—*Mr. Swayne.*

2. C. ECHINATUS. L. Rough Dog's-tail-grass. E. B. 1333.  
June—July. A.

Found in 1846, in a field near Pilkington (Mr. J. Horsefield).  
Abundantly during 1847, in a field near the Dog-house, Withington.

### FESTUCA. LINN. N. O. GRAMINEÆ.

1. F. OVINA. L. Sheep's Fescue-grass. E. B. 585. June. P.

Heaths, moors, and hilly pastures. Abundant.

It flourishes best in a dry, sandy soil. Cows, horses, and goats, will eat it; but it is the favourite food of sheep, they prefer it before all other grasses, and are said soonest to grow fat upon it; for, though small, it is succulent. The Tartars, who lead a wandering life, tending their flocks and herds, always choose those spots where this grass abounds.—*Linn.* Such may be its just character in the uncultivated wilds of nature, and, as it prefers a dry soil, its growth is an indubitable indication of the salubrity of such places for flocks of sheep; but, in a more rich and cultivated country, Mr. Swayne says, it is of little value as a pasture grass, being extremely diminutive; nor will it remain long in the ground if sown, but will give place to more luxuriant grasses. W. 215.

2. F. DURIUSCULA. L. TAROVINA, var.  $\delta$ . DURIUSCULA. BAV.  
Hard Fescue-grass. E. B. 470. June. P.

Hedge banks, meadows, and pastures. Common.

A very excellent grass for the agriculturist; springing very early, being productive, and grateful to all kinds of cattle, and found in moist good meadows and pastures.—*Mr. Swayne.*

3. F. BROMOIDES. L. Barren Fescue-grass. E. B. 1411. June.  
A.

Dry pastures and waste places, especially on a sandy soil. Common in fields at Bowdon and near Altrincham. Red-brows, near Didsbury. Near Chorlton. Near Tyldesley. About Prestwich

4. F. PRATENSIS. HUDS. F. ELATIOR. L. Meadow Fescue-grass. E. B. 1592. August. P.

Moist meadows. Common.

A valuable grass to the farmer.

5. *F. LOLIACEA*. HUDS. Spiked Fescue-grass. E. B. 1821.  
July—August. P.

Moist meadows and pastures, not unfrequent. Abundant on the right bank of the Mersey, about half a mile below Nothern.

This seems to be a variety of the preceding; as there are found various intermediate states between the paniculate form of *F. pratensis* and the spicate one of *F. loliacea*.

6. *F. ELATIOB. L.* Tall Fescue-grass. E. B. 1593. July. P.

Moist meadows, and banks of rivers. Not common. Abundant on the left bank of the Irwell, above and below Clifton Aqueduct. Various places on the right bank of the same river, above and below Agecroft Bridge.

It makes an excellent pasture, but requires a rich soil. Horses, cows, sheep, and goats eat it.—*Linn.*

7. *F. GIGANTEA. VILL. BROMUS GIGANTEUS. L. HOOK.* Gigantic Fescue-grass. E. B. 1820. July. P.

Woods and moist shady places. Abundant. Mere Clough. Boggart-hole Clough. Woods in Reddish and Marple Vales. Many other places.

*BROMUS. LINN. N. O. GRAMINEÆ.*

1. *B. ASPER. L.* Hairy Wood Brome-grass. E. B. 1172.  
August. A. or B.

Moist woods and hedges. Cotterill Wood, abundant. Woods in Marple and Reddish Vales, abundant. Banks of the Irwell, near Clifton Aqueduct. Boggart-hole Clough. Various other places.

2. *B. STERILIS. L.* Barren Brome-grass. E. B. 1030. June—  
July. A.

Waste ground and hedge banks. Frequent. Road-side near Eccles. Road-side near Cheetham-Hill. Right side of the road between Hulme and Stretford. Near Chorlton. Road-side near Longsight.

3. *B. ERECTUS. HUDS.* Upright Brome-grass. E. B. 471. June—  
July. P.

In a field between Werneth Low and Compstall Bridge, plentiful (Mr. J. Sidebotham).

*SERRAFALCUS. PARLATORE. N. O. GRAMINEÆ.*

1. *S. COMMUTATUS. P. BROMUS PRATENSIS. SM. B. RACEMOSUS. HOOK.* E. B. 920. June—July. A. or B.

Meadows. Frequent. Common about Chorlton and Withington. Meadows near Altrincham, plentiful. About Stretford. Various other places.

2. *S. ARVENSIS*. P. *BROMUS ARVENSIS*. L. Taper Field Brome-grass. E. B. 1984. June—July. A.

Cultivated fields. Very rare. Field near Withington, sparingly. Also in a field near Hyde, sparingly (Mr. J. Sidebotham). Was growing abundantly in a corn-field near Northen, in 1848.

3. *S. MOLLIS*. P. *BROMUS MOLLIS*. L. Sm. Hook. Soft Brome-grass. E. B. 1078. June. B.

Road-sides, meadows, and pastures. Extremely common.

Its merit or demerit, in an agricultural view, does not seem sufficiently ascertained. Mr. Swayne says it is disliked by farmers, as being in corn-fields a troublesome weed, and in pastures and mowing grounds of little value, since it has generally shed its seed by the time of mowing, and produces very few root leaves. W. 226. The seeds are said to bring on giddiness in the human species and quadrupeds, and to be fatal to poultry.—*Ency. Plants*. 64.

4. *S. RACEMOSUS*. P. *BROMUS RACEMOSUS*. L. Sm. Hook. Smooth Brome-grass. E. B. 1079. June—July. A.

Meadows and pastures. Frequent. About Stretford, Chorlton, and Withington. Near Altrincham.

#### AVENA. LINN. N. O. GRAMINEÆ.

1. *A. FATUA*. L. Wild Oat. Haver. E. B. 2221. July—August. A.

Cultivated fields. Not common. About Chorlton and Withington.

This is nearly as good as the cultivated oat; it will make gruel or oat-cake, and feed cattle, as well as it. Ray says it sells in Cornwall at the price of wheat. W. 233.

2. *A. STRIGOSA*. SCHREB. Bristle-pointed Oat. E. B. 1266. June—July. A.

Cultivated fields and waste places. Not unfrequent. About Prestwich, Stretford, and Chorlton. Not unfrequent on the banks of railways. Fields in Lower Broughton, occasionally.

#### TRisetum. PERS. N. O. GRAMINEÆ.

1. *T. FLAVESCENS*. BEAUV. *AVENA FLAVESCENS*. L. Sm. Hook. Yellow Oat. E. B. 592. July. P.

Field about a quarter of a mile south-east of Royton church, plentiful. Meadows near the left bank of the Irwell, between Agecroft Bridge and Clifton Aqueduct. Fields near Stretford and Chorlton. Fields by the road-side between Longsight and Stockport.

Cattle are not fond of it, but Mr. Swayne says it is the best of the genus for the use of the farmer. W. 334.

## HORDEUM. LINN. N. O. GRAMINEÆ.

1. H. SYLVATICUM. HUDS. ELYMUS EUROPEUS. L. SM. HOOK.  
Wood Lyme-grass. E. B. 1317. June. P.  
Cotterill Wood.

## TRITICUM. LINN. N. O. GRAMINEÆ.

1. T. CANINUM. HUDS. ELYMUS CANINUS. L. Fibrous-rooted  
Wheat-grass. E. B. 1372. P.  
Banks of the Irwell above and below Clifton Aqueduct. Banks of  
the brook near Hough End. Wood at the Red-Brows. Various  
other places.
2. T. REPENS. L. Creeping Wheat-grass. Couch-grass. E. B.  
909. July—August. P.

Too frequent. A variety with awns nearly as long as those of  
the preceding, is found on the right bank of the Irwell, near  
Agecroft Bridge.

This is a most troublesome weed in arable lands, and can only be destroyed by  
fallowing in a dry summer. The roots have a sweet taste, somewhat approaching to that  
of liquorice; when dried and ground into meal, they have been made into bread in seasons  
of scarcity. The juice of them, drunk liberally, is recommended by Boerhaave in ob-  
structions of the viscera; in cases of scirrhus liver and jaundice. Cattle are frequently  
found to have scirrhus livers in the winter, and they soon get cured when turned out  
to grass in the spring. Dogs eat the leaves to excite vomiting. Horses eat them when  
young, but leave them off when fully grown. Sheep and goats eat them. W. 245.

## BRACHYPODIUM. BEAUV. N. O. GRAMINEÆ.

1. B. SYLVATICUM. BEAUV. FESTUCA SYLVATICA. SM. Slender  
False Brome-grass. E. B. 729. July. P.  
Woods and hedges. Common. Cotterill Clough. Woods in  
Marple and Reddish Vales. Bamford Wood. Mere Clough.  
Many other places.

## LOLIUM. LINN. N. O. GRAMINEÆ.

1. L. PERENNE. L. Perennial Darnel. Rye-grass. E. B. 315.  
June—July. P.  
Waste places, meadows, and pastures. Common.

Subject to considerable variation in the length, breadth, and density of the spikes,  
which are sometimes branched, forming a panicle. An awned variety is frequently met  
with.

It makes an excellent hay upon dry, chalky, or sandy soils. It is cultivated with ad-  
vantage along with clover, and springs earlier than the other grasses, thereby supplying  
food for cattle at a season when it is most difficult to be obtained. Cows, horses, and  
sheep eat it; goats are not fond of it.—*Mr. Swayne.*

2. *L. MULTIFLORUM*. LAM. Italian Rye-grass. June. A.

Cultivated for several years past in place of *L. perenne*, but becoming naturalized.

Subject to the same kind of variation as the preceding.

This grass, in consequence of its large size, and its being more succulent and of quicker growth, was originally introduced as a substitute for the common rye grass. But as, in drying, it loses a far greater amount of its weight, it is better adapted for green fodder than hay; and it is not now as much cultivated as it has been.

3. *L. TEMULENTUM*. L. Bearded Darnel. E. B. 1124. July. A.

Cultivated fields. Occasionally. Field near Gee Cross, plentiful (Mr. J. Sidebotham).

var.  $\beta$ . *ARVENSE*. L. *ARVENSE*. SM. Short-awned Annual Darnel. E. B. 1125.

Near Prestwich. About Chorlton and Withington.

The seeds, mixed with bread-corn, produce but little effect, unless the bread is eaten hot; but, malted with barley, the ale soon occasions drunkenness.—*Linn*. Made into bread, with a small portion of wheat, and eaten repeatedly, produces vomiting, purging, violent colics, and death. Sheep are not fond of it. W. 239.

## DIGITARIA. SCOP. N. O. GRAMINEÆ.

1. *D. SANGUINALIS*. SCOP.? *PANICUM SANGUINALE*. L. Cock's-foot. Finger-grass. E. B. 849. July—August. A.

This grass has annually made its appearance, for several years, on heaps of cotton-waste, near some paper works, at Heap, near Bury. I found it plentifully, in 1846, upon a large heap of manure, at Newton Heath.

All the stems which lie near the ground take root, and by this means, though an annual and short-lived plant, it increases and spreads very wide.—*Miss Jennings*.

## CLASS. TRIANDRIA.

## ORDER. TRIGYNIA.

## MONTIA. LINN. N. O. PORTULACÆÆ.

1. *M. FONTANA*. L. Blinks. Fountain Chick-weed. E. B. 1206. May—July. A.

Hale Moss. Ditches on Chat Moss. Rills on all the surrounding hilly districts.

## CLASS. TETRANDRIA.

## ORDER. MONOGYNIA.

## DIPSACUS. LINN. N. O. DIPSACEÆ.

1. D. SYLVESTRIS. L. Wild Teasel. E. B. 1032. July. B.

Sometimes, but very rarely, seen in the neighbourhood of Manchester. Near Pennington Hall, Leigh (Mr. John Martin).

## KNAUTIA. COULT. N. O. DIPSACEÆ.

1. K. ARVENSIS. COULT. SCABIOSA ARVENSIS. SM. HOOK.  
Field Knautia. E. B. 659. July. P.

In a field at the Red-brows, near Withington. In fields about Agecroft, but not plentiful. In fields on the right bank of the Irwell, at Mode-wheel, near Eccles. Between Disley and Whaley, Cheshire, plentiful. Near Marple Hall, plentiful.

Sheep and goats eat it; horses and cows are not fond of it. It is slightly astringent, bitter, and saponaceous. W. 257.

## SCABIOSA. LINN. N. O. DIPSACEÆ.

1. S. SUCCISA. L. Devil's-bit Scabious. E. B. 878. July—October. P.

Dry woods and pastures. Abundant.

The dried leaves are used to dye wool yellow or green.—*Linn.* W. 126. The sudorific qualities of the root are said to be useful in cutaneous diseases, but it is altogether discarded by the regular practitioner. The root, in consequence of its abrupt termination, in former ages was supposed to have been bitten off by the great enemy of mankind; which occasioned Old Gerrard to say, in his quaint manner, "old fantastick charmers report that the devell did bite it for enuie, because it is an herb that hath so many goode vertues, and is so beneficial to mankinde."

## GALIUM. LINN. N. O. RUBIACEÆ.

1. G. VERUM. L. Yellow Bed-straw. E. B. 660. July—August. P.

On the Buxton road, between Disley and Whaley.

It is called ladies' bed straw, from its being one among a variety of odoriferous herbs which were formerly used to strew beds with. The bruised plant is sometimes put in milk intended for cheese, to give it a flavour and colour. Boiled in alum-water, the flowering-stems dye a yellow colour; and the roots are nearly equal to madder.

Sheep and goats eat it, horses and swine refuse it, cows are not fond of it.—*Linn.*

2. *G. CRUCIATUM*. WITH. *VAILLANTIA CRUCIATA*. L. Cross-wort Bed-straw. Mug-weed. E. B. 143.

In various places near Stretford. Jackson's Boat, Northern, Sale, Flixton, and Carrington.

3. *G. PALUSTRE*. L. White Water Bed-straw. E. B. 1857. June—July. P.

Sides of ditches, ponds, and rivulets. Everywhere.

4. *G. ULIGINOSUM*. L. Rough Marsh Bed-straw. E. B. 1972. August. P.

Lower part of Kersal Moor, near the brook, sparingly. On a spongy bog near the margin of Rosthern Mere.

5. *G. SAXATILE*. L. Smooth Heath Bed-straw. E. B. 815. June—August. P.

Heaths, moors, and commons. In great abundance.

6. *G. APARINE*. L. Goose-grass. Cleavers. E. B. 816. June July. A.

Hedges and thickets. Everywhere.

The branches are used by the Swedes instead of a sieve to strain milk. Young geese are very fond of them. The seeds may be used instead of coffee. The plant is eaten by horses, cows, sheep, and goats; swine refuse it.—*Linn*. The expressed juice of the stem and leaves, taken to the amount of four ounces night and morning, is very efficacious in removing many of those cutaneous eruptions which are called, although improperly, scorbutic. It must be continued for several weeks. W. 268.

#### ASPERULA. LINN. N. O. RUBIACEÆ.

1. *A. ADORATA*. L. Sweet Woodruff. Sweet Mountain Madder. E. B. 755. May—June. P.

In most of the woods near Manchester. Boggart-hole Clough. Woods in Medlock Vale. Woods in Reddish Vale. In Mere Clough. In Fog-brook Clough, near Marple. Woods in Marple Vale.

Dr. Smith remarks that the fresh herb has no smell; but, as soon as it begins to dry, it exhales a pleasant and lasting fragrance, like that of new hay, verging towards the flavour of bitter almonds. The scent of it is said to drive away tick, and other insects.—*Linn*. It gives a grateful flavour to wine. Cows, horses, sheep, and goats, eat it. (According to Willick, the strongly aromatic flowers infused in water, far excel in flavour all the teas imported from China.) W. 259.

#### SHERARDIA. LINN. N. O. RUBIACEÆ.

1. *S. ARVENSIS*. L. Blue Sherardia, or Field Madder. E. B. 891. June—August. A.

About Chorlton, Withington, Didsbury, Sale, and Stretford, in cultivated fields. Near Tyldesley and Astley. Common.

## PLANTAGO. LINN. N. O. PLANTAGINÆÆ.

1. P. MAJOR. L. Greater Plantain. Common Plantain. E. B. 1558. June—August. P.

Roadsides and pastures. Everywhere.

Sheep, goats, and swine, eat it; cows and horses refuse it. The common people apply the green leaves to fresh wounds. W. 272.

2. P. MEDIA. L. Hoary-leaved Plantain. E. B. 1559. June—July. P.

On a hedge bank close to the Duke of Bridgewater's Canal, at Sale. Near Seaman's Moss, rather sparingly.

3. P. LANCEOLATA. L. Ribwort Plantain. E. B. 175. June—July. P.

Meadows, pastures, and road-sides. Everywhere.

Linnaeus says it is eaten by horses, sheep, and goats, and that cows refuse it; but Haller attributes the richness of the milk, in the famous alpine dairies, to this plant, and to the *Atchemilla vulgaris*. The total absence of this plant in marshy lands, is a certain criterion of the wretched quality thereof. In proportion as such soils are ameliorated by draining, this plant will flourish and abound. It is often sown and cultivated for pasturage, but it does not answer the purpose well without a mixture of clover, or other grasses. W. 273.

4. P. CORONOPUS. L. Buck's-horn Plantain. E. B. 892. June July. A.

In front of a large house between Altrincham and Bowdon. It formerly grew plentifully in two or three places on Kersal Moor, but was destroyed there in consequence of the alterations being made on the race-course. It also existed on Bowdon Moss, but that moss is now cultivated. It occurred very plentifully, half way between Bowdon and Altrincham, some years since, although it is now reduced to some half a dozen plants.

## CENTUNCULUS. LINN. N. O. PRIMULACEÆ.

1. C. MINIMUS. L. Small Chaff-weed. Bastard Pimpernel. E. B. 531. June. A.

Hale Moss, but not plentiful. On Lindow Common, near Wilmslow, plentiful.

This is the smallest of the British Phanerogamic plants, and the only known species.

## PARIETARIA. LINN. N. O. URTICEÆ.

1. P. OFFICINALIS. L. Pellitory of the wall. E. B. 879. Summer months. P.

Under a large stone in the lane below Bowdon Church. On walls in one or two places near Leigh.

This plant was formerly in repute as a medicine, but it does not seem to possess any remarkable qualities. It is asserted that the leaves, strewed in granaries, destroy the Corn Weevil. It contains, it is said, a considerable quantity of nitre, and that in making an extract from it, the mass has sometimes taken fire. W. 279.



ALCHEMILLA. LINN. N. O. ROSACEÆ.

1. A. VULGARIS. L. Common Lady's Mantle. E. B. 597.  
June—July. P.

Meadows and pastures. Very common.

Horses, sheep, and goats, eat it; swine refuse it; cows are not fond of it. The Rev. S. Dickenson gives the following curious account of its pernicious effects on cows:—"Being lately on a visit near Somerford, Mr. Moreton requested me to examine the herbage of a meadow near the river Penk, in which he had the misfortune, a few years ago, to have five milch cows die suddenly at once, and several more were with difficulty recovered. The symptoms of the complaint, which he attributed to some noxious plant, were irremediable costiveness and obstructions of the bowels. Upon examination, I found a very unusual abundance of *Alchemilla vulgaris* in every part of the field; and am inclined to believe this plant the cause of the fatality, as it is known to be of a very astringent quality. It was the aftermath the herd depastured; and the survivors, upon being introduced into the same field the summer following, were immediately affected with similar symptoms, but were removed in time to prevent fatal consequences; since which Mr. Moreton has never hazarded the depasturing of it by the neat cattle." W. 283.

2. A. ARVENSIS. SM. APHANES ARVENSIS. L. Field Lady's Mantle. Parsley Piert. E. B. 1011. Summer Months. A.

Cultivated fields. Plentiful.

SANGUISORBA. LINN. N. O. ROSACEÆ.

1. S. OFFICINALIS. L. Great Burnet E. B. 1312. June—August. P.

In fields bordering on the river Irwell, both above and below Manchester, in moist situations, plentifully. In similar situations on the borders of the Mersey. In meadows near the banks of the Tame, in Reddish Vale, plentifully.

CLASS. TETRANDRIA.

ORDER. TETRAGYNIA.

ILEX. LINN. N. O. ILICINÆ.

1. I. AQUIFOLIUM. L. Common Holly. E. B. 496. May—June. T.

In the mountainous districts about Manchester, Near Seal-bark, Greenfield, it has all the appearance of being truly wild.

All the varieties, which gardeners reckon to the amount of forty or fifty, are derived from this one species, and depend upon the variegations of the leaves or thorns, and the colour of the berries. Sheep are fed in winter with the croppings, as are also deer. Birds eat the berries. The bark, fermented, and afterwards washed from the woody fibres, makes the common bird lime. W. 291.

## POTAMOGETON. LINN. N. O. POTAMOGETONEÆ.

1. P. NATANS. L. Broad-leaved Pond-weed. E. B. 1822. June—July. P.

Ponds and stagnant waters. Everywhere.

The leaves, floating upon the surface of the water, afford an agreeable shade to fish, and are the habitation and food of the *Phalena potamogetona*. The roots are the favourite food of swans. Their love for this plant, so troublesome in still pieces of water, is such that, by harassing it in search of its succulent roots during winter, a pair of them have almost destroyed it in the whole extent of nearly five acres of water, which, at times, has been completely matted over with it.—*Mr. Stackhouse*. W. 292.

2. P. OBLONGUS. VIV. E. B. S. 2849. June—July. P.

Hale Moss, plentiful. Lindow Common. Rooley Moor. Several other places.

3. P. RUFESCENS. SCHRAD. P. FLUITANS. SM. Reddish Pond-weed. E. B. 1286. July. P.

Plentiful in pits near Chorlton. Pits on Hale Moss. In Clayton, on the Ashton new road, midway between Clayton and Manchester. Pit at Whitefield, Pilkington. A reservoir belonging to a bleach works, a little below Mere Clough.

4. P. LUCENS. L. Shining Pond-weed. E. B. 376. June—July. P.

Rosthern Mere, plentiful. In a pit near the Mere.

5. P. PERFOLIATUS. L. Perfoliate Pond-weed. E. B. 168. July. P.

Rosthern Mere. Duke of Bridgewater's Canal, Monton Green. In the same Canal, near Town-lane Bridge, Bedford, near Leigh.

6. P. CRISPUS. L. Curled Pond-weed. Fresh-water Caltrops E. B. 1012. June. P.

In the pond at Mr. Drinkwater's, Agecroft, abundant. Near Jackson's Boat. At Sale. In the reservoir attached to the bleach-works, Mere Clough. In Atherton canal, and other places, near Leigh.

Ducks greedily devour this plant, and may be usefully employed to clear ponds infested with it. W. 294.

7. P. GRAMINEUS. L. Grassy Pond-weed. E. B. 2253. June—July. P.

Ponds, near Stretford and Chorlton. Pits at Withington. In pits, and in the brook, at Hale Moss. In a pit, about half a mile south of Tyldesley. Plentiful.

8. *P. PUSILLUS*. var.  $\beta$ . *BAB. P. COMPRESSUS*. *SM.* Small Pond-weed. *E. B.* 215. July. *P.*

In pits, behind the Bull and Punch-bowl, Stretford-road. In a pit, near the brook-side, Collyhurst bridge. In the Bolton canal, near Clifton Aqueduct. Plentiful in old clay-pits, near Oldfield-lane and Cross-lane railway bridges. In deep drains, near Jackson's Boat.

9. *P. PECTINATUS*. *L.* Fennel-leaved Pond-weed. *E. B.* 323. July. *P.*

In the canal, at Monton Green, near Eccles. Near Bedford. In great abundance, in the Duke of Bridgewater's canal, near Lymm, Cheshire.

### *SAGINA*. *LINN.* *N. O. CARYOPHYLLLEÆ.*

1. *S. PROCUMBENS*. *L.* Procumbent Pearl-wort. *E. B.* 880. May—August. *A.*

Waste places, and dry pastures. Very common.

2. *S. APELATA*. *L.* Annual Small-flowered Pearl-wort. *E. B.* 881. May—June. *A.*

Cultivated fields, Bowdon. Church-yard wall, Bowdon. Near Marple. The var.  $\gamma$ . of Mr. Gibson, is found in the garden of Mr. Paul Moon James, Irlams o'th' Height, as a common weed.

### *MCENCHIA*. *EHRH.* *N. O. CARYOPHYLLLEÆ.*

1. *M. ERECTA*. *SM.* *SAGINA ERECTA*. *L.* Upright *Mcenchia*. *E. B.* 609. May. *A.*

Hedge-bank, near the Park-side station of the Manchester and Liverpool railway.

### *RADIOLA*. *GMEL.* *N. O. LINEÆ.*

1. *R. MILLEGRANA*. *SM.* *LINUM RADIOLA*. *L.* Thyme-leaved Flax-seed. *E. B.* 893. July—August. *A.*

On Lindow Common, near Wilmslow, plentiful. On a piece of waste ground, the remains of Sale Moor. Fields, near Barton Moss.

## CLASS. PENTANDRIA.

## ORDER. MONOGYNIA.

## ECHIUM. LINN. N. O. BORAGINEÆ.

1. E. VULGARE. L. Common Viper's Bugloss. E. B. 181.  
June—July. B.

Cultivated fields, near Hough End, and other parts of Withington, an occasional visitant. Near Park-side Station, on the Manchester and Liverpool Railway.

Cows and sheep are not fond of it; horses and goats refuse it; bees are fond of the flowers—*Linn.*; but get their wings torn by its strong hairs. This plant, dried and powdered, forms an ingredient of the celebrated Spanish remedy against the bites of vipers and mad dogs; particulars of which may be found in the *Monthly Magazine*, vol. xxix. p. 14. *W.* 318.

## LITHOSPERMUM. LINN. N. O. BORAGINEÆ.

1. L. ARVENSE. L. Corn Gromwell. E. B. 123. May—June.  
A.

In corn and clover fields about Chorlton and Withington, but not common. In similar situations about Prestwich and Pilkington, and equally rare.

## SYMPHYTUM. LINN. N. O. BORAGINEÆ.

1. S. OFFICINALE. L. Common Comfrey. E. B. 817. June.  
—July. P.

Rare. Between Chorlton Church and Jackson's Boat, sparingly. In a field near Jackson's Boat, plentifully.

The particles of the pollen appear in the microscope like two globules united together. The leaves give a grateful flavour to cakes, and the young stems and leaves are excellent when boiled. The roots are glutinous and mucilaginous, and a decoction of them is used by dyers with gum lac. Cows and sheep eat it; horses, goats, and swine, refuse it. *W.* 315.

2. S. ASPERRIMUM. BAB.

Has been found, apparently wild, in a meadow on the left bank of the river Tame, near Bredbury Wood, near Hyde (Mr. J. Sidebotham).

## BORAGO. LINN. N. O. BORAGINEÆ.

1. B. OFFICINALIS. L. Common Borage. E. B. 36. June—  
July. B.

Among rubbish, and in waste ground. An occasional visitant.

This plant was once thought to strengthen the frame, and give courage and spirit to those who partook of it. The old English bowl, called a cool tankard, and made of cider, lemon-juice, and water, was considered to derive its refreshing powers from the borage blossoms which were steeped in it; and, as may easily be ascertained, they certainly possess the power of imparting coolness to the liquid.—*Wild Flowers*, p. 84. Horses eat it. W. 116.

### LYCOPSIS. LINN. N. O. BORAGINÆÆ.

1. L. ARVENSIS. L. Small Wild Bugloss. E. B. 938. June—July. A.

Cultivated fields about Chorlton and Withington, occasionally. Fields and lanes at Bowdon, common. Corn fields in the neighbourhood of the river Mersey, near Hollins Green.

### ANCHUSA. LINN. N. O. BORAGINÆÆ.

1. A. SEMPERVIRENS. L. Evergreen Alkanet. E. B. 45. May—August. P.

On a ditch bank, in a lane which bounds Dunham Park in a north-westerly direction.

### MYOSOTIS. LINN. N. O. BORAGINÆÆ.

1. M. PALUSTRIS. WITH. MYOSOTIS SCORPIOIDES PALUSTRIS. L. Great Water Scorpion-grass. Forget-me-not. E. B. 1973. Summer Months. P.

On the margin of ponds and ditches. Not uncommon. On the margin of a pond near Stretford Aqueduct. By the side of a running stream about a quarter of a mile from Stretford, in the direction of Altrincham. In other places about Stretford. Near Chorlton. On the margin of an old pit between Chorlton and Longford Hall. Thornham, near Middleton.

“ Sweet azure flower, with golden eye,  
That on the meadow banks dost lie;  
Or, by the quiet streamlet fed,  
On pillowing moss dost rest thy head;  
Who by thy gems unmark'd can pass?  
Bright gleaming through the dewy grass.”

S. WABING.

2. M. REPENS. DON. Creeping Water Scorpion-grass. E. B. S. 2703. June. P.

In wet ditches upon Hale Moss, plentiful. In Mere Clough, sparingly. On Lindow Common, near Wilmslow. Pitstead in a field at the upper end of Mere Clough, plentiful.

3. M. CÆSPITOSA. SCHULTZ. Tufted Water Scorpion-grass. E. B. S. 2661. Summer months. A. B. or P.

Wet ditches and boggy margins of ponds. Plentiful.

4. *M. SYLVATICA*. EHRH. Upright Wood Scorpion-grass.  
E. B. S. 2630. June—July. P.

In Cotterill Wood, abundant. In a wood behind Agecroft Hall, rather sparingly. In a wood on the left bank of the river Medlock, in Clayton Vale, near Hulme's print works. Several woods in Reddish Vale, abundant. Dan-bank Wood. In Marple Wood, and other woods in Marple Vale.

5. *M. ARVENSIS*. HOFFM. Field Scorpion-grass. E. B. S. 2629.  
Summer months. A.

Hedge banks and cultivated fields. Very common.

6. *M. VERSICOLOR*. EHRH. Yellow and Blue Scorpion-grass.  
E. B. 480. May—June. A.

Hedge banks and cultivated fields. Common.

#### PULMONARIA. LINN. N. O. BORAGINÆÆ.

1. *P. OFFICINALIS*. Lung-wort. E. B. 118. May—June. P.

In a wood on the left bank of the river Goyt, between Compstall Bridge and Marple Aqueduct.

#### ANAGALLIS. LINN. N. O. PRIMULACEÆ.

1. *A. ARVENSIS*. L. Scarlet Pimpernel; or Poor Man's Weather-glass. E. B. 529. Summer months. A.

Cultivated fields and road sides. Common.

- A. ARVENSIS*. var.  $\beta$ . *cærulea*. BAB. and HOOK. *A. CÆRULEA*. SM. Blue Pimpernel. E. B. 1823. Summer months. A.

I have seen this at Hough End, but sparingly. In a field between Gatley and Sharston (Mr. Glover).

- A. ARVENSIS*. var.  $\gamma$ . *carnea*. SCHRANK. BAB.

This variety, with flowers of a pale flesh colour, or nearly white, with a purple eye, I have met with at Bowdon and Eccles.

“ Of humble growth, though brighter dyes  
But not by rural swains less prized,  
The trailing stems allure:  
Of Pimpernel, whose brilliant flower,  
Closes against th' approaching shower,  
Warning the swain to sheltering bower,  
From humid air secure.”

MORAL OF FLOWERS.

4. *A. TENELLA*. L. Bog Pimpernel. E. B. 530. July—August. P.

Upon Hale Moss, plentifully. Baguley Moor. Near Milnrow.

### LYSIMACHIA. LINN. N. O. PRIMULACEÆ.

1. *L. VULGARIS*. L. Great Yellow Loosestrife. E. B. 761. July—August. P.

Wet, boggy situations; margins of ponds. Mere Mere, and Rosthern Mere, Cheshire. In a swampy place near Morley's Bridge, Astley.

2. *L. NEMORUM*. L. Wood Loosestrife. Yellow Pimpernel. E. B. 527. May—July. P.

Woods, and damp, shady places. Very common.

3. *L. NUMMULARIA*. L. Money-wort, or Herb Twopence. E. B. 528. June—July. P.

Shady places. Rosthern Mere. In marshy places, about three quarters of a mile south-west of Tyldesley Church; and in the adjoining townships, Atherton, Astley, and Bedford. In a lane beyond the stone bridge crossing the Irk, and leading to Smedley Hall. By the river Medlock, near Clayton Bridge.

### PRIMULA. LINN. N. O. PRIMULACEÆ.

1. *P. VULGARIS*. HUDS. *P. VERIS*. var. *ACAULIS*. L. Common Primrose. E. B. 4. April—June. P.

Woods, hedge banks, and pastures. Very common.

Gerard reports that a drachm and a half of the dried root, taken up in autumn, operates as a strong but safe emetic. Sheep and goats eat it; cows are not fond of it; horses and swine refuse it.—*Linn.* Silk worms may be fed with the leaves. W. 319.

2. *P. VERIS*. L. Common Cowslip or Paigle. E. B. 5. May. P.

In the neighbourhood of Ringway, Cheshire. In a field near the residence of Mr. Milne, Prestwich. In a field near Ashton-upon-Mersey. In a meadow below Hope Hall, on the Eccles road, and other places near Eccles, plentiful.

"Now in my walk, with sweet surprise  
I see the first Spring Cowslip rise,  
The plant whose pensile flowers  
Bend to the earth their beauteous eyes  
In sunshine as in showers."

MONTGOMERY.

## HOTTONIA. LINN. N. O. PRIMULACEÆ.

1. H. PALUSTRIS. L. Water-violet. Featherfoil. E. B. 364.  
June. P.

In a pond at Whitefield, Pilkington. In a pit near Tandle Hill, abundant.

## MENYANTHES. LINN. N. O. GENTIANEÆ.

1. M. TRIFOLIATA. L. Buckbean. Marsh Trefoil. E. B. 495.  
June. P.

Boggy margins of ponds about Gorton and Rosthern Mere. At Lately Common, near Bedford, abundantly. On Hale Moss. On Lindow Common, plentifully.

An infusion of the leaves is extremely bitter, and is prescribed in rheumatisms and dropsies. A drachm of them in powder purges and vomits; it is sometimes given to destroy worms. In a scarcity of hops, this plant is used in the north of Europe to bitter the ale, two ounces supplying the place of a pound of hops. Some people smoke the dried leaves. It has been said that it cures sheep of the rot, but from the Upsal experiments it appears that, though goats eat it, sheep seldom do. Cows, horses, and swine, refuse it. W. 322.

## VILLARSIA. VENT. N. O. GENTIANEÆ.

1. V. NYMPHÆOIDES. VENT. MENYANTHES NYMPHÆOIDES.  
L. Nymphæa-like Villarsia. E. B. 217. June—August. P.

In a pond behind the house formerly occupied by Leigh Philips, Esq., at Greenheys. In the reservoir of Rhodes' print works, near Middleton.

## ERYTHRÆA. RENEALM. N. O. GENTIANEÆ.

1. E. CENTAURIUM. PERS. GENTIANA CENTAURIUM. L.  
Common Centaury. E. B. 417. July—August. A.

Dry pastures. Common.

## DATURA. LINN. N. O. SOLANEÆ.

1. D. STRAMONIUM. L. Thorn-apple. E. B. 1288. July. A.

It is occasionally found upon waste ground by the way side, below Bowdon Church; and in potato fields near Chorlton.

The seeds or leaves given internally bring on delirium, tremours, swelling, itching, eruption, and inflammation on the skin; these effects were produced by a dose of a drachm and a half, in a girl of nine years old. Cows, goats, sheep, and horses, refuse it. It is the root only, and the latter part of the stem, which seem to possess the anti-asthmatic virtue: these should be cut into small pieces, and put into a common tobacco-pipe, and the smoke must be swallowed, together with the saliva produced by the smoke: after which the sufferer will, in a few minutes, be relieved from all convulsive heaving, and probably drop into a comfortable sleep, from which he will awake refreshed, and often perfectly recovered. He must avoid drinking with the pipe, but he will find a dish of coffee afterwards highly refreshing. W. 345.



## HYOSCYAMUS. LINN. N. O. SOLANÆÆ.

1. H. NIGER. L. Common Hen-bane. E. B. 591. July. A.

Bowdon Church-yard.

The seeds, the leaves, and the roots, taken internally, are reputed poisonous; and well attested instances of their effects are recorded—madness, convulsions, and death, are the general consequence. But Dr. Smith says, he has often eaten of the seeds with impunity. It is said that the leaves, scattered about a house, will drive away mice. Goats are not fond of it; horses, cows, sheep, and swine, refuse it.—*Linn.* Sheep sometimes eat it when young. The fumes from the seeds of henbane, heated in the bowl of a tobacco-pipe placed in the fire, have been recommended in severe tooth-ache; the fumes may be conveyed from the pipe to the affected tooth by a tube of tin. *W.* 346.

## SOLANUM. LINN. N. O. SOLANÆÆ.

1. S. DULCAMARA. L. Woody Nightshade. Bitter-sweet. E. B. 565. June—July. Sh.

Moist hedges, thickets, and boggy margins of ponds. Very common.

2. S. NIGRUM. L. Common or Garden Nightshade. Black Nightshade. E. B. 566. June—September. A.

By road sides near Bowdon. On the Altrincham side of Hale Moss. About Baguley Moor. As a garden weed near Eccles.

This plant is poisonous.

## VERBASCUM. LINN. N. O. SOLANÆÆ.

1. V. THAPSUS. L. Great Mullein. Ladies' Fox-glove. High Taper. E. B. 549. July—August. B.

Upon hedge banks between Baguley Moor and Ringway. About Bowdon and Barton.

Externally used, it is emollient. It eases the pains of the intestines, and is often used externally for the piles. It is said to intoxicate fish so that they may be taken with the hand. The down serves for tinder. Cows, goats, sheep, horses, or swine, will not eat it. *W.* 339.

2. V. BLATTARIA. Moth Mullein. E. B. 393.

Near Atherlow, Cheshire.

## CONVOLVULUS. LINN. N. O. CONVOLVULACEÆ.

1. C. ARVENSIS. L. Small Bind-weed. E. B. 312. June—July. P.

By the river Mersey, near Hollins Ferry. Various places about Bowdon. Upon a ditch bank by the road side, nearly opposite the Shakspeare Inn, Ardwick. In a field near the left bank of the Mersey, between Northen and Cheadle.

2. *C. SEPIUM*. L. Great Bind-weed. E. B. 313. July—September. P.

Moist woods and hedges. Very common.

The inspissated juice of the plant, in doses of twenty or thirty grains, is a powerful drastic purgative. Scammony is the inspissated juice of a species of *Convolvulus*, so much resembling this, that they are with difficulty distinguished. Though an acrid purgative to the human race, it is eaten by hogs in large quantities without any detriment. Sheep, goats, and horses, eat it; cows refuse it. W. 328.

### VINCA. LINN. N. O. APOCYNÆÆ.

1. *V. MINOR*. L. Lesser Periwinkle. E. B. 917. May. P.

On the right bank of the river Irwell, a little below Clifton Aqueduct. Near Marple.

### JASIONE. LINN. N. O. CAMPANULACEÆ.

1. *J. MONTANA*. L. Sheep's Scabious. Sheep's-bit. E. B. 882. June—July. A. or B.

Pastures and hedge banks. Very common.

### CAMPANULA. LINN. N. O. CAMPANULACEÆ.

1. *C. LATIFOLIA*. L. Giant Bell-flower, or Throat-wort. E. B. 302. June—September. P.

Woods, hedge banks, and borders of fields. At Broughton Ford. On hedge banks near Broughton Castle. Upon hedge banks, and on the banks of a brook, between Agecroft Bridge and Clifton Aqueduct. At Irlam, and at Bedford, near Leigh. A white variety occurs near Tyldesley Banks, on the borders of the township of Atherton. Near Peel Green. Cotterill Wood. Marple Wood. Arden Wood, and woods in Reddish Vale. On the left bank of the Irwell, about forty yards above Clifton Aqueduct.

The beauty of its flowers frequently procures it a place in our gardens. The whole plant abounds with a milky liquor. Horses, sheep, and goats, eat it. The young shoots, stripped of the skin, are boiled and eaten as greens about Kendal (Mr. Gough). W. 331.

2. *C. ROTUNDIFOLIA*. L. Round-leaved Bell-flower, or Hair-bell. E. B. 866. June—September. P.

Hedge banks and dry pastures. Very common.

Are we not beautiful? Are not we  
The darlings of mountain, and woodland, and lea?  
Plunge in the forest—are we not fair?  
Go to the high road—we'll meet you there.  
Oh! where is the flower that content may tell,  
Like the laughing, the nodding, and dancing Hair-bell."

ROMANCE OF NATURE.

3. C. **RAPUNCULUS**. L. Rampion Bell-flower. Rampious. E. B. 283. June—July. P.

In a meadow between the lower end of Mere Clough and the river Irwell.

**WAHLENBERGIA**. SCHRAD. N. O. **CAMPANULACEÆ**.

1. W. **hederacea**. REICH. C. **hederacea**. SM. and HOOK. Ivy-leaved Bell-flower. E. B. 73. July—August. P.

About two miles beyond Mottram, on the right bank of the river Etherow, near Haigh Bridge; and in other situations on the same stream. Whiteley Dean, near Rochdale.

**LONICERA**. LINN. N. O. **CAPRIFOLIACEÆ**.

1. L. **periclymenum**. L. Honeysuckle. Woodbine. E. B. 800. June—October. Sh.

Woods and hedges. Very common.

The beauty and fragrance of its flowers render it a pleasing ornament to our gardens, hedges, and arbours. Cows, goats, and sheep, eat it; horses refuse it. W. 338.

“ By rustic seat and garden bower,  
There’s not a leaf, or shrub, or flower,  
Blossom or bush, so sweet as thee,  
Lowly but fragrant Honey-tree.  
By stately hall we see thee not,  
But find thee near the lowly cot,  
Or latticed porch—by humble door  
Thou leanest with thy honied store,  
Dropping from thy be-bosom’d flowers  
Sweetness through evening’s dewy hours.  
Tree of the cottage and the poor!  
Can palace of the rich have more?  
No! sweet content as seldom dwells  
In palaces as lowly cells.”

**RHAMNUS**. LINN. N. O. **RHAMNEÆ**.

1. R. **frangula**. L. Black Berry-bearing Alder. Alder Buckthorn. E. B. 250. June—July. Sh.

Mere Clough, plentiful. Very plentiful at Rosthern Mere. In the lane opposite the front of Hough End Hall; and in other places near Chorlton and Withington. Tyldesley Moss: and near Chat Moss.

From a quarter to half an ounce of the inner bark, boiled in small beer, is a sharp purge. In dropsies, or constipations of the bowels of cattle, it is a very certain purgative. The berries, gathered before they are ripe, dye wool green. The bark dyes yellow; and, with preparations of iron, black. Charcoal prepared from the wood is preferred by the makers of gunpowder. The flowers are particularly grateful to bees. Goats devour the leaves voraciously, and sheep will eat them. W. 352.

## EUONYMUS. LINN. N. O. CELASTRINEÆ.

1. E. EUROPEUS. L. Spindle-tree. E. B. 362. June—July. Sh.

In a plantation near Lichfield Hall, Blakeley. Cotterill Wood.

The berries vomit and purge violently. They are fatal to sheep. Powdered and sprinkled upon the hair, they destroy lice. If the wood be cut when the plant is in blossom, it is tough and not easily broken; and in that state is used by watch-makers for cleaning watches, and by other persons to make skewers and tooth-picks. Goats and sheep eat it; horses refuse it. Cows are so fond of the shoots in the spring as constantly to break down the banks of the fields wherever a plant of it grows.—*Mr. Woodward.* W. 353.

## IMPATIENS. LINN. N. O. BALSAMINEÆ.

1. I. NOLI-ME-TANGERE. Yellow Balsam. Touch-me-not. E. B. 937. July—September. A.

At the bottom and on the sides of a rocky ravine in Bamford Wood, abundantly.

The whole plant is considerably acrid. Goats eat it; horses, cows, and sheep refuse it. W. 358.

## VIOLA. LINN. N. O. VIOLARIÆ.

1. V. ODORATA. L. Sweet Violet. E. B. 619. March—April. P.  
var.  $\beta$ . with white flowers.

At the foot of Hough End farm-yard wall, var.  $\beta$ . In Weaste Lane, near Eccles. (The colour of the flowers in this variety is blue and white, being intermediate between that of the species in its ordinary condition, and the var.  $\beta$ .) Under a hedge near the bottom of Mere Clough, var.  $\alpha$ . blue. Under a hedge by the side of a footpath leading from Greenhill to Withington, var.  $\alpha$ . blue. On the right bank of the river Mersey, about half a mile below Marple Aqueduct, var.  $\beta$ . On a hedge bank about three miles on the left side of the road from Stockport to Marple, var.  $\alpha$ . and  $\beta$ .

The flowers and the seeds are said to be mild laxatives. The powdered root, in doses from 40 to 80 grains, vomits and purges. The petals give the colour to the sirup of violets, for which purpose they are cultivated in large quantity at Stratford-upon-Avon. This sirup is very useful in many chemical inquiries, to detect an acid or an alkali, the former changing the blue colour to a red, and the latter to a green. Slips of white paper, stained with the juice of the petals, and kept from the air and light, answer the same purpose. W. 355.

“ Sweet flower! Spring’s earliest, loveliest gem,  
While other flowers are idly sleeping,  
Thou rearest thy purple diadem,  
Meekly from thy seclusion peeping.

“ Thou, from thy little sacred mound  
Where diamond dew-drops shine above thee,  
Scatterest thy modest fragrance round,  
And well may nature’s poet love thee.

"Thine is a short swift reign, I know,  
But here, thy spirit still pervading,  
New violet's tuft again shall blow,  
Then fade away as thou art fading.

"And be renewed the hope now blest,  
Oh! may that hope desert us never,  
Like thee to sleep on Nature's breast,  
Then wake again and bloom for ever."

BOWRING.

2. *V. PALUSTRIS*. L. Marsh Violet. E. B. 444. May. P.

On the borders of Chat Moss. Baguley Moor. Mere Clough.  
Rainsall Clough. Hale Moss. Boggy situations in many other  
places, common.

3. *V. CANINA*. L. Dog's Violet. E. B. 620. April—June. P.

Woods and hedge banks. Everywhere.

4. *V. TRICOLOR*. L. Pansy. Heart's-ease. E. B. 1287. A. B.  
or P.

In clover and other cultivated fields. Very common.

Dr. Strack says, that it infallibly cures the scabby complaints in young children, called  
*crusta lactae*. He boils a handful of the fresh, or half a drachm of the dried leaves, in  
half a pint of milk, and gives this milk morning and evening for some weeks. W. 357.

var. *β. arvensis*. petals shorter than the calyx.

Along with the other, almost equally common.

5. *V. LUTEA*. HUDS. Yellow Mountain Violet, or Yellow Pansy.  
E. B. 721. May—September. P.

Upland pastures in Derbyshire, about three miles and a half beyond  
Mottram. A pasture field, near Staly Brushes, sparingly.

RIBES. LINN. N. O. GROSSULARIÆ.

1. *R. ALPINUM*. L. Tasteless Mountain Currant. E. B. 704.  
May. Sh.

By the side of a brook a little below the lower end of Mere Clough.  
In garden hedges about Syddall Moor, between Pilkington and  
Heywood, but planted. In similar situations about Staly Bridge.

The fruit has a flat, sweetish taste, and is only agreeable to children. The wood  
being hard and tough, makes good teeth for rakes. Cows, goats, sheep, and horses eat  
the leaves.—"It is well worth observing how truly the insertion of the stamina into the  
calyx, as in the class *Icosandria*, indicates a wholesome fruit. The fruits of *Pentandria*  
*Monogynia* are generally dangerous, many of them peculiarly fatal. *Ribes* is an excep-  
tion, indicated by the insertion of its stamina, in which, though not in their number, it  
accords with the *Icosandria*. With this simple guide a traveller in the most unknown  
wilderness might eat in safety; and thus the natural tree of knowledge leads to life."  
W. 360.

2. *R. RUBRUM*. L. Common, or Red Currant. E. B. 1289.  
March—April. Sh.

Cotterill Wood. Red-brow Wood, near Northen. On the right bank of the river Irwell, near Broughton Castle. Hedges near Jackson's Boat.

Generally cultivated, with red, pale pink, or white berries, in the gardens of the north of Europe; not so successfully in the south. The fruit is universally acceptable, either as nature presents it, or made into jelly. The juice is a pleasant acid in punch. If equal weights of picked currants and pure sugar be put over the fire, the liquor that separates spontaneously is a most agreeable jelly. Cows, goats, and sheep eat the leaves; horses are not fond of them.—*Linn.* This plant is very apt to be infested by the *Aphis Ribes*, and then the green leaves become red, pitted, and puckered. W. 359.

3. *R. NIGRUM*. L. Black Currant. E. B. 1291. March—April.  
Sh.

In a clough near Ashworth Wood.

The berries have a very peculiar flavour, which many persons dislike; but their juice is frequently boiled down into an extract, with the addition of a small proportion of sugar; in this state it is called rob, and is much used in sore throats, chiefly in those of the inflammatory kind. The tender leaves tinge common spirits so as to resemble brandy. An infusion of the young roots is useful in fevers of the eruptive kind, and in the dysenteric fevers of cattle. Goats and horses eat the leaves; a horse refused them. W. 361. A small quantity of the leaves, mixed with tea, is said to impart an agreeable flavour to it.

4. *R. GROSSULARIA*. L. Common Gooseberry. E. B. 1292.  
March—April. Sh.

Cotterill Wood. Woods near Marple.

The berries of both kinds, which by cultivation vary in colour from white to yellow, green, red, purple, and black, and in size from the dimension of a pea to that of a walnut, afford a very favourite and wholesome fruit, either fresh or preserved. The seeds of gooseberries, when washed, dried, roasted, and ground, are a good substitute for coffee. W. 362.—In no part of England has the gooseberry been more cultivated than in Lancashire, by hand-loom weavers and working men, who at their annual shows have produced fruit of enormous size, but certainly not much improved in taste.

## HEDERA. LINN. N. O. ARALIACEÆ.

1. *H. HELIX*. L. Common Ivy. E. B. 1267. November. Sh.

Hedges, old ruins, and woods. Everywhere.

The roots are used by leather cutters to whet their knives upon. Its evergreen leaves adorn our walls, and cover the naked trunks of trees. Apricots and peaches covered with ivy during the month of February, have been observed to bear fruit plentifully.—*Phil. Trans.*, No. 475. They purge and vomit. Horses and sheep eat it; goats and cows refuse it. W. 363.

“Till with each other pleased, and loath to part,  
While in their age they differ, join in heart.  
Thus stands an aged Elm in Ivy bound,  
Thus youthful Ivy clasps an Elm around.”

PARNEL.

## CLASS. PENTANDRIA.

## ORDER. DIGYNIA.

## GENTIANA. LINN. N. O. GENTIANEÆ.

1. G. PNEUMONANTHE. L. Marsh Gentian. Canadian Violet.  
E. B. 20. July—August. P.

Baguley Moor; upon a hedge bank which separates that portion of the moor which is applied to the cultivation of the strawberry, from the remaining portion. On High-field Moss.

2. G. AMARELLA. L. Autumnal Gentian. E. B. 236. July—September. A.

Mountain pastures beyond Bury. Similar situations near Saddleworth.

3. G. CAMPESTRIS. L. Field Gentian. E. B. 237. July—September. A.

Near Greenfield. On Harrop Hedge, and Quick Edge, near Staly Bridge. Werneth Low, near Hyde (Mr. J. Tinker).

## HYDROCOTYLE. LINN. N. O. UMBELLIFERÆ.

1. H. VULGARIS. L. Common White-rot. Marsh Penny-wort.  
E. B. 751. May—June. P.

Wet, marshy places, and moors. Hale Moss. Kersal Moor. Baguley Moor. Chat Moss. Other similar localities.

## SANICULA. LINN.

1. S. EUROPÆA. L. Wood Sanicle. E. B. 98. June. P.

Shakerley and Coutacre Cloughs, near Leigh. Cotterill Wood, plentiful. Woods in Reddish Vale. Fog-brook Clough, near Marple. Many other woods in Marple Vale.

## CONIUM. LINN.

1. C. MACULATUM. L. Common Hemlock. E. B. 1191. July August. B.

Common in the neighbourhood of Worsley. About Reddish, Chorlton, and Stretford, occasionally.

The whole plant is poisonous.

## CICUTA. LINN.

1. *C. VIROSA*. L. Cowbane. Water Hemlock. E. B. 479. June—July. P.

About old pits and pitsteads, near Bucklow Hill. Upon Knutsford Moor.

This is one of the rankest of our vegetable poisons. Numerous instances are recorded of its fatality to the human species, in a treatise upon it in *Wepfer and Haller's Hist. Helv.* No. 781. See also an account of its deleterious effects in the *Phil. Trans. abr.* Early in the spring, when it grows in water, cows often eat it, and are killed by it; but as the summer advances, and its scent becomes stronger, they carefully avoid it. Though a certain and fatal poison to cows, goats devour it greedily and with impunity; horses and sheep eat it with safety. W. 411.

## HELOSCIADIUM. KOCH.

1. *H. NODIFLORUM*. KOCH. *SIUM NODIFLORUM*. L. Sm. Pro-cumbent Marsh-wort. E. B. 639. July—August. P.

Plentiful in old pits and ditches near Altrincham and Bowdon. In the Duke of Bridgewater's canal, at Monton Green. In ditches near Baguley Moor.

A young girl, six years old, was cured of an obstinate cutaneous disease, by taking three large spoonfuls of the juice twice a day; and Withering says that he has repeatedly given it to adults, three or four ounces every morning, in similar complaints, with the greatest advantage.

2. *H. INUNDATUM*. KOCH. *SIUM INUNDATUM*. L. *SIUM INUNDATUM*. Sm. Least Marsh-wort. E. B. 227. June. A. B. or P.

In a pit behind the house formerly occupied by Leigh Philips, Esq., at Greenheys, along with *Villarsia nymphaeoides*. Pits on Baguley Moor. Old pits near Bowdon. Pits near Stretford; pits on and near Lindow Common; and pits near Withington, plentiful.

## EGOPODIUM. LINN.

1. *Æ. PODAGRARIA*. L. Gout-wort. Herb Gerarde. E. B. 940. June.

Damp places. On the banks of rivers, in which situations the creeping roots of the plant are useful in binding together the loose, sandy soil on which they grow.

The leaves may be eaten early in the spring, with other pot-herbs. Cows, sheep, and goats eat it; horses are not fond of it. W. 424.

## CARUM. LINN.

1. *C. CARUI*. L. Caraway. E. B. 1503. June. B.

Occasionally found about Chorlton and Withington.



Parkinson says, the young roots are better eating than parsneps. The tender leaves may be boiled with pot-herbs. The seeds are used in cakes; incrusted with sugar are called caraway comfits, and are distilled with spirituous liquors for the flavour they afford. They are no despicable remedy in certain agues. They abound with an essential oil, which is anti-spasmodic and carminative. Sheep, goats, and swine eat it; cows and horses are not fond of it. (We learn from the *Philosophical Journal*, that one pound of the seeds yields four ounces of oil, also about half an ounce of camphor. F.) W. 420.

### BUNIUM. LINN.

1. B. FLEXUOSUM. WITH. CONOPODIUM FLEXUOSUM. HOOK.  
Pig-nut. Earth-nut. E. B. 988. May—June. P.

Woods, meadows, and pastures. Abundant.

The roots, eaten raw, boiled, or roasted, are very little inferior to chesnuts, and would be an agreeable addition to our winter desserts. W. 394.

### PIMPINELLA. LINN.

1. P. SAXIFRAGA. L. Common Burnet-Saxifrage. E. B. 407.  
July—August. P.

Dry hedge banks, meadows, and pastures. Common.

2. P. MAGNA. L. Great Burnet-Saxifrage. E. B. 408. July—  
August. P

Hedges about a quarter of a mile east of Morley's Hall, near Leigh. Upon a piece of waste ground by the Duke of Bridgewater's canal, about a mile and a half beyond Lymm.

### SIUM. LINN.

1. S. ANGUSTIFOLIUM. L. Narrow-leaved Water-Parsnep. E. B.  
139. July—August. P.

Beside the Duke of Bridgewater's canal, Bedford. In an old pit at Timperley Bridge; and in a lane leading from Timperley Bridge to the Knutsford high road; and in other places in the same neighbourhood. Old pits below Bowdon Church.

### CENANTHE. LINN.

1. C. CROCATA. L. Hemlock Water Dropwort. E. B. 2313.  
June—July. P.

Pennington, near Leigh, abundant. Black Clough, near Kersal Moor. On the right hand side of the Warrington road, about a hundred yards beyond the sixth mile-stone. At Sailor's Shore, between Pilkington and Ratcliffe. In a ditch by the left hand side of the road, about a mile short of Bucklow Hill.

2. *Æ. PHELLANDRIUM. SPRENG. PHELLANDRIUM AQUATICUM.*  
 L. Fine-leaved Water Dropwort. E. B. 684. June—July. P.

Land-side, Pennington. Lately Common, Bedford, near Leigh.  
 Pits behind the Bull and Punchbowl, Stretford road. By the side  
 of a pit near Bucklow Hill.

### *ÆTHUSA. LINN.*

1. *Æ. CYNAPIUM. L. Common Fool's-parsley. Lesser Hemlock.*  
 E. B. 1192. July—August. A.

Gardens, cultivated fields, and waste ground. Very common.

### *ANGELICA. LINN.*

1. *A. SYLVESTRIS. L. Wild Angelica.* E. B. 1128. July—  
 August. P.

Moist woods and marshy places. Very common.

It is warm, acrid, bitter, and aromatic; but the species cultivated in our gardens  
 possessing these properties in a higher degree, this has long been neglected. Cows, goats,  
 and swine eat it; horses refuse it.—*Linn.* A horse eat the flowering stem. St. W. 403.

### *HERACLEUM. LINN.*

1. *H. SPHONDYLIIUM. L. Common Cow-parsnep. Hogweed.*  
 E. B. 939. July. B.

var.  $\beta$ . leaves more deeply cut, lobes narrower.

Hedges and meadows. Very common. var.  $\beta$ . is sometimes found  
 in Broughton; also near Eccles (Mr. John Shaw).

In Poland and Lithuania, the poor people prepare a liquor from the leaves and seeds,  
 which undergoes a fermentation, and is drunk instead of ale. The stalks, when peeled,  
 are eaten by the Kamschatkans. The Russians take the leaf-stalks of the root-leaves,  
 peel them, and hang them in the sun to dry a little; then they tie them in little bundles,  
 and hang them up again till they become yellow. In this state they put them into bags,  
 and a mealy substance like sugar forms upon the surface of them. This they shake off,  
 and treat their guests with it as a great delicacy. They likewise distil an ardent spirit  
 from it. The peelings of the stalks are acrid. The leaves are a favourite food of rabbits,  
 hogs, and asses. Cows, goats, and sheeep eat them; horses are not fond of them.  
 W. 399.

### *DAUCUS. LINN.*

1. *D. CAROTA. L. Wild Carrot.* E. B. 1174. July—August.  
 B.

Pastures and cultivated fields. Frequent.

There are several varieties. The largest, and that best adapted for field culture, is  
 called the Altrincham, from a town in Cheshire. The early horn and orange are the  
 best garden sorts. The seeds do not retain their vegetative powers more than a year,  
 for which reason the cautious cultivator ought to prove them before sowing. The first  
 and last of April are the best seasons for sowing for a crop.—*Ency. Plants.* 211.

## TORILIS. ADANS.

1. T. ANTHRISCUS. GAERT. TORDYLIUM ANTHRISCUS. L.  
Upright Hedge-parsley. E. B. 987. July. A.  
Hedges and ditch banks. Very common.
2. T. NODOSA. GAERT. Knotted Hedge-parsley. E. B. 199.  
Spence's field, Higher Burns, Astley; and in a field in Shackerley,  
near Tyldesley (Mr. John Martin).

## SCANDIX. LINN.

1. S. PECTEN-VENERIS. L. Common Shepherd's Needle. Venus's  
Comb. Needle Chervil. E. B. 1397. June—July. A.  
Corn and clover fields about Chorlton and Withington, occasion-  
ally; and in similar situations elsewhere.

## ANTHRISCUS. HOFFM.

1. A. SYLVESTRIS. HOFFM. CHÆROPHYLLUM SYLVESTRE. L.  
and SM. Wild Chervil. Smooth Cow-parsley. E. B. 752.  
May—June. P.

Meadows and hedges. Abundantly.

The roots, eaten as parsneps, have been found poisonous. The umbels afford an in-  
different yellow dye; the leaves and stems a beautiful green. Its presence indicates a  
fruitful soil. Neither horses, sheep, nor goats are fond of it; swine refuse it; cows and  
rabbits are fond of it. W. 416.

2. A. VULGARIS. PERS. SCANDIX ANTHRISCUS. L. Common  
Beaked-parsley. E. B. 818. May—June. A.

Hedge banks by the road side near Broad-heath Bridge; and in  
other places about Altrincham. At Bowdon.

*A. vulgaris* bears a near resemblance to the common chervil (*Cherophyllum sativum*),  
and being gathered as such, and put into soups by the Dutch soldiers who were in Eng-  
land in 1745, some of them were poisoned by it.—*Ency. Plants.* 209.

## CHÆROPHYLLUM. LINN.

1. C. TEMULENTUM. L. MYRRHIS TEMULENTA. SM. Rough  
Chervil. E. B. 1521. June—July. P.

Hedges and ditch banks. Common.

## MYRRHIS. TOURN.

1. M. ODORATA. SCOP. SCANDIX ODORATA. L. Sweet Cicely.  
E. B. 697. May—June. P.

In Shackerley and Westhoughton, near Leigh, plentiful. Banks of  
the Irwell, from Ringley to Broughton. Banks of the Mersey,

from Marple to its junction with the Irwell, in many places abundant. On and near the banks of the Tame, in Reddish Vale, in great profusion. Banks of the Medlock, Clayton Vale. In a valley on the banks of the Dane rivulet, above Bamford Wood, abundant.

### CORIANDRUM. LINN.

1. *C. SATIVUM*. L. Common Coriander. E. B. 67. July. A.

In waste places. Near the Dog-house Farm, Hough End, in 1841. Very rare.

*C. Sativum* has been long cultivated, chiefly in Essex, and is considered as naturalized. The leaves are strongly scented; the seeds, which are slightly aromatic, are used to cover the taste of senna, and in spices, as curry powder, and seasoning black puddings; also covered with sugar, as a sweetmeat. Formerly, they were steeped in wine or vinegar, and then dried, to render them milder.—*Ency. Plants*, 209.

### CHENOPODIUM. LINN. N. O. CHENOPODIACEÆ.

1. *C. POLYSPERMUM*. L. var.  $\beta$ . *C. ACUTIFOLIUM*. SM. Sharp-leaved Goosefoot. E. B. 1481. August—September. A.

A garden weed in the neighbourhood of Cheetham-Hill.

2. *C. ALBUM*. L. White Goosefoot. E. B. 1723. var.  $\beta$ . *viride*. *C. VIRIDE*. L.

Cultivated fields and waste ground, everywhere. var.  $\beta$ . is found about Chorlton, Dunham, and in Broughton.

Cows, goats, and sheep eat it; horses refuse it; swine are extremely fond of it. A black *Aphis* feeds upon it, and sometimes destroys it. W. 369.

3. *C. RUBRUM*. L. Red Goosefoot. E. B. 1721. July—August. A.

In a farm-yard on the left hand side of Stretford-road, about two hundred yards from Longford Bridge, plentiful.

4. *C. BONUS-HENRICUS*. L. Mercury Goosefoot. Good King Henry. English Mercury. E. B. 1033. July—August. P.

Upon a sloping bank opposite the Grove Inn Gardens, Higher Broughton. Near the church of Ashton-upon-Mersey, plentiful. Hough End Farm-yard. Near Withington Old Hall. Near to Sale Hall.

Cultivated as spinach by the poor people at Boston, in Lincolnshire.—*Curtis*. The young shoots, peeled and boiled, may be eaten as asparagus, which they resemble in flavour. They are gently laxative. The leaves are often boiled in broth. The roots are given to sheep that have a cough. Goats and sheep are not fond of it; cows, horses, and swine refuse it. W. 367. It is sometimes cultivated in gardens by parties who prefer it to spinach.

## ULMUS. LINN. N. O. URTICACEÆ.

1. U. CAMPESTRIS. L. Common Small-leaved Elm. E. B. 1886.  
March—April. T.

Woods and hedges. Very common.

The species, like those of the genus *Salix*, are so nearly related as to be often confounded. Linneus considered all the European elms as forming only one species.—*Ency. Plants*. 208. The bark, dried and ground to powder, has been mixed with meal in Norway, to make bread, in times of scarcity. Its leaves are acceptable to cows, horses, goats, sheep, and swine. W. 378.

2. U. SUBEROSA. ERHR. Common Cork-barked Elm. E. B.  
2161. March. T.

Various places in the neighbourhood of Tyldesley, &c.

3. U. MONTANA. SM.? WITH. Broad-leaved Elm. Wych-hazel  
or Elm. E. B. 1887. March—April. T.

On the banks of the river Irwell, near Agecroft. On the banks of the Tame, in Reddish and Arden Vale, plentiful. Many other places.

## CLASS. PENTANDRIA.

## ORDER. TRIGYNIA.

## VIBURNUM. LINN. N. O. CAPRIFOLIACEÆ.

1. V. OPULUS. L. Common Guelder-rose. Water Elder. E. B.  
332. May—June. Sh.

Moist woods, and the banks of brooks and rivers. Very common.

## SAMBUCUS. LINN. N. O. CAPRIFOLIACEÆ.

1. S. EBULUS. L. Dwarf Elder. Danewort. E. B. 475. July.  
P.

A rough, dry pasture, near Dob-cross, Saddleworth. Between Tyldesley and Bolton, in several places, but near houses, and, consequently, doubtfully wild.

2. S. NIGRA. L. Common Elder. E. B. 476. June. T.

Hedges and thickets. Frequent.

“ If verdant elder spreads  
Her silver flowers ; if humble daisies yield  
To yellow crowfoot and luxuriant grass,  
Gay shearing-time approaches.”

DYER.

## CLASS. PENTANDRIA.

## ORDER. TETRAGYNIA.

## PARNASSIA. LINN. N. O. DROSERACEÆ. BAB.

1. P. PALUSTRIS. L. Grass of Parnassus. E. B. 82. August—October. P.

Hale Moss, near Altrincham, plentiful.

*P. palustris* is one of the most elegant of our marsh plants, well deserving a place in aquatic collections.—*Ency. Plants*. 229. (Hooker observed it, in the Orkney Isles, of an extremely diminutive size, scarcely an inch in height, in full blossom, with all the characters of the more usual appearance of the plant.) Another striking confirmation of the remark, that the same species of plant may grow both on mountains and in marshes, because the clouds resting on the tops of the mountains keep the air in a moist state, as is done by the fogs in meadows and other low situations. W. 430. Alpine grasses are from the same cause often viviparous.

## CLASS. PENTANDRIA.

## ORDER. PENTAGYNIA.

## LINUM. LINN. N. O. LINEÆ.

1. L. USITATISSIMUM. L. Common Flax. E. B. 1357. July—August. A.

Cultivated fields. Common, and sometimes plentiful, about Altrincham and Bowdon. Less common in other situations.

*L. usitatissimum* is a well known thread or clothing plant, which has been cultivated from the remotest antiquity for its cortical fibres, or boon, which, when separated from the woody matter, or "hard," as it is technically called by the growers, form the lint which is spun into yarn and woven into linen cloths.—*Ency. Plants*. 232.

2. L. CATHARTICUM. L. Purging Flax. Mountain Flax. Mill-mountain. E. B. 382. June—August. A.

Dry pastures, especially in hilly districts. Plentiful.

## DROSERA. LINN. N. O. DROSERACEÆ.

1. D. ROTUNDIFOLIA. L. Round-leaved Sun-dew. E. B. 867. July—August. P.

Carrington, Clifton, White, and Chat Mosses. On Lindow Common, and the boggy part of Kersal Moor.

*D. rotundifolia* is an acrid, caustic plant, by some supposed to occasion the rot in sheep. It curdles milk, removes warts and corns, and takes away freckles and sunburn. Distilled with wine, it produces a very stimulating spirit, and it was formerly much used

as a tincture, spiced and sweetened. The leaf hairs support globules of clear liquor, even in the hottest day; are very irritable, and close upon small insects that touch them, after which the leaf itself bends and holds the dead insect imprisoned.—*Ency. Plants.* 233.

“ By the lone fountain's sacred bed,  
Where human footsteps rarely tread,  
'Mid the wild moor, or silent glen,  
The Sun-dew blooms, unseen by men;  
Spreads there her leaf of rosy hue,  
A chalice for the morning dew.”

S. WABING.

2. *D. LONGIFOLIA*. L. Long-leaved Sun-dew. E. B. 868. July—August. P.

Carrington, Clifton, and Chat Mosses. On Lindow Common, plentiful.

3. *D. ANGLICA*. HUDS. Great Sun-dew. E. B. 869. July—August. P.

Carrington, Clifton, White, and Chat Mosses; plentiful. Also upon Lindow Common.

## CLASS. HEXANDRIA.

### ORDER. MONOGYNIA.

#### BERBERIS. LINN. N. O. BERBERIDEÆ.

1. *B. VULGARIS*. L. Berberry. E. B. 49. June. Sh.

At a place called Touchet's Hole, about a mile from Middleton, near the Leeds Railway. Hedges near Rooden lane and Whitesmithy bar.

*B. vulgaris* is at once an ornamental shrub, a fruit tree, a hedge plant, a dye, a drug, and a reputed enemy to the corn farmer. When covered with flowers in spring, or with fruit in autumn, it is a fine object. The leaves are of a yellowish or bluish green, and gratefully acid to the taste; the smell of the flowers is offensive when near, but pleasant at a certain distance. The berries are so very acid, that birds seldom touch them. The Berberry, however, is cultivated for the sake of those which are pickled and used for garnishing dishes; and being boiled with sugar, form a most agreeable rob, or jelly; they are used likewise as a sweetmeat, and are put into sugar-plums, or comfits. As a medicine the fruit is considered a mild restraining acid, agreeable to the stomach, and of efficacy (like other vegetable acids) in hot bilious disorders, and in a putrid disposition of the humours. The roots, boiled in a lye, yield a yellow colour; and in Poland they dye leather of a fine yellow with the bark of the root. The inner bark of the stems, also, will dye linen of a fine yellow, with the assistance of alum. Kine, sheep, and goats are said to eat it; horses and swine refuse it.—*Ency. Plants.* 286. When the anthers are thoroughly ripe, if the bottom of the filament be ever so slightly touched or irritated with a pin, or a straw, the stamen rises with a sudden spring, and strikes the anther against the summit of the pistil, affording a remarkable instance of one of the means used to perform the important office of impregnation.—*Mr. Whately, from Dr. Sims.*

This singular vitality of fibre (something more than elasticity), which we denominate irritability, and which is particularly apparent in such plants as are called sensitive, has also excited the attention of that very ingenious experimentalist, Kolreuter, who observes that the cells of the anthers do not split open lengthways, but that the outer coat detaches itself along the edges of the partition which separates the two cells, and, raising

itself up with the greater portion of the pollen adhering to the inner surface, finally faces towards the stigma, having the inner surface that fronts the stigma covered with pollen. It is by this singular expedient that nature has so completely succeeded in her object of fecundation by the emission of pollen; for by this mode of opening of the anthers, the stamens have gained so much in length, that they are enabled to reach with precision the stigma on which they are to discharge their contents. Had the cells opened in the usual way, the stamens would have been too short for their intended functions. When a stamen has gone through this movement it draws the petal, to the base of which it is fixed, a little toward itself, and this is the reason that when we have suddenly stimulated all the stamens of a flower that was before pretty much expanded, we see it become half closed again. The anthers are insensible to stimulus; the filaments evince most irritability nearest their bases. The phenomenon may be fully induced by a burning lens; and when the flowers are electrified, and sparks are drawn from them by the approach of a metallic body, the stamens immediately spring towards the pistil. If it could happen that during the season of bloom the flowers were to remain uninfluenced by adventitious stimulus, the stamens would continue extended at their wonted distance from the pistil, and no fecundation could take place. But let us see the means adopted by Divine wisdom for insuring the fecundation of this useful vegetable. Each petal has near its base two oblong melliferous glands; between every two of these glands a stamen is placed, so that whenever an insect (of which numbers present themselves in the course of a day, beetles, flies, bees, and wasps, seeking their own food) attempts to extract the honey exuded by the glands, it must touch, especially the lower and most irritable part of the filament, upon which this organ immediately springs up and proceeds to cover with its prolific dust the upper part of the pistil.—*Annals of Botany*, v. 2.

#### PEPLIS. LINN. N. O. LYTHRARIEÆ.

1. P. PORTULA. L. Water Purslane. E. B. 1211. July—August. A.

Watery places in Cheshire, viz., about Sale, Baguley, and other places, plentiful. Upon Hale Moss, abundant. Upon Lindow Common. Moss o' Lee Common, near Worsley.

#### NARCISSUS. LINN. N. O. AMARYLLIDEÆ.

1. N. BIFLORUS. CURT. Pale Narcissus. Primrose Peerless. E. B. 276. May. P.

In a field at Pilsworth, near Bury.

2. N. PSEUDO-NARCISSUS. L. Common Daffodil. E. B. 17. April. P.

A field near the right bank of the Mersey, a little above Jackson's Boat. Trafford Park. A field about a quarter of a mile south-west of Prestwich Church; and other localities.

#### GALANTHUS. LINN. N. O. AMARYLLIDEÆ.

1. GALANTHUS NIVALIS. L. Snowdrop. E. B. 19. February. P.

In a field near Ringway Chapel, plentiful, and apparently wild (Mr. James Percival.)



"Welcome, thou little modest flower !  
 Thou ventur'est forth in stormy hour,  
 Bending thine head beneath the shower,  
 So meek and low ;  
 Smiling at hoary winter's lower,  
 Amongst the snow.

"Welcome, thou little bonny thing !  
 Glad are the tidings thou dost bring ;  
 Soon will the grass begin to spring,  
 The trees to bud,  
 And feather'd songsters sweetly sing  
 In yonder wood.

"But ah ! too short will be thy stay,  
 Lone guest of winter's dreary day !  
 Scarce will the sun upon thee play  
 His beam of light  
 Ere thou wilt wither and decay,  
 And sink in night.

"And so have many sunk beside ;  
 Some dropping from their tow'ring pride—  
 Some in their loneliness have died.  
 Perchance I may  
 Look bright upon a stormy world,  
 And pass away."

SAMUEL BAMFORD.

## CONVALLARIA. LINN. N. O. AMARYLLIDEÆ.

1. C. MULTIFLORA. L. Common Solomon's Seal. E. B. 279.  
 June. P.

A hedge bank at Mottram, Cheshire.

## ALLIUM. LINN. N. O. LILIACEÆ.

1. A. URSINUM. L. Broad-leaved Garlic. Ramsons. E. B. 122.  
 May—June. P.

Moist woods and hedges. Mere Clough, abundant. Fields near the Mersey, between Stretford and Nothern.

An infusion in brandy is said to be a good remedy for the gravel.—*Penn. Jour.* 175. Other plants growing near it do not flourish. Cows eat it ; but it communicates its flavour to the milk and butter, so as to be very offensive in the spring. W. 448. Honey bees have a great objection to its smell, and nothing vexes them more than this plant being thrown amongst them.

## AGRAPHIS. LINK. N. O. LILIACEÆ.

1. A. NUTANS. LINK. SCILLA NUTANS. SM. HYACINTHUS NON-SCRIPTUS. L. HOOK. Blue-bell. E. B. 377. May. P.

Woods, hedges, and thickets. Abundant.

The fresh roots are poisonous. They may be converted into starch. W. 454.

var.  $\beta$ . with white flowers.

Black Clough, near Kersal Moor. Reddish Vale.

var.  $\gamma$ . with flesh-coloured flowers.

Middle Hulton, near Dean.

### NARTHECIUM. HUDS. N. O. JUNCÆÆ.

1. N. OSSIFRAGUM. HUDS. ANTHERICUM OSSIFRAGUM. L.  
Lancashire Bog-Asphodel. E. B. 535. July—August. P.

All mosses and wet places in the moorland districts around Manchester, abundant.

It is believed in Sweden to be noxious to sheep, and has been supposed to soften the bones of animals that eat it; but this opinion wants confirmation. Cows and horses eat it; sheep and swine refuse it. W. 455.

### FRITILLARIA. LINN. N. O. LILIACEÆ.

1. F. MELEAGRIS. L. Common Fritillary. Chequered Daffodil.  
Frog Tulip. Snake's-head. E. B. 622. April. P.

Stated to grow wild in a field near the river Bollin, below Cotterill Wood.

### ACORUS. LINN. N. O. AROIDEÆ.

1. A. CALAMUS. L. Common Sweet Flag. E. B. 356. June—  
July. P.

Pickley Green, near Leigh. Hale Moss, abundant. Pit behind the Bull and Punch-bowl, Stretford road. Two pits on each side of the road, about half a mile from Eccles. Pits at Moston, and near Tandle Hill.

The powder of the roots is said to have cured agues when the Peruvian bark has failed. The roots have a strong, aromatic smell, and a warm, pungent, bitterish taste. The flavour is greatly improved by drying. They are commonly imported from the Levant, but those of our own growth are fully as good. Cows, horses, goats, sheep, or swine will eat it. W. 459.

### JUNCUS. LINN. N. O. JUNCÆÆ.

1. J. EFFUSUS. L. Soft Rush. E. B. 836. July—August. P.  
Marshy ground. Common.

2. J. CONGLOMERATUS. L. Common Rush. E. B. 835. July  
—August. P.

Marshy ground. Equally common with the last species.

3. J. GLAUCUS. SIBTH. Hard Rush. E. B. 665. July. P.

Damp pastures and road sides. Common.

4. *J. OBTUSIFLORUS*. EHRH. Blunt-flowered Jointed Rush. E. B. 2144. August—September. P.

Seaman's Moss-pits, near Altrincham, plentiful. Hale Moss, abundant.

5. *J. ACUTIFLORUS*. EHRH. Sharp-flowered Jointed Rush E. B. 238. June—August. P.

Boggy situations. Very common.

9. *J. LAMPOCARPUS*. EHRH. Shining-fruited Jointed Rush. E. B. 2143. July—August. P.

Boggy situations. Common.

7. *J. SUPINUS*. MÖENCH. *J. ULIGINOSUS*. SM. HOOK. *J. BULBOSUS*. L. Little Bulbous Rush. E. B. 801. August. P.

Boggy and swampy places. Kersal Moor and Hale Moss, plentiful.

8. *J. SQARROSUS*. L. Moss Rush. Goose-corn. E. B. 933. June. P.

Moory and heathy ground. In great abundance.

9. *J. BUFONIUS*. L. Toad Rush. E. B. 802. August. A.

Moist and watery places, especially such as are liable to be overflowed during winter. Very common.

#### LUZULA. DR. CAND. LUCIOLA. SM. N. O. JUNCEÆ.

1. *L. SYLVATICA*. BICH. *J. PILOSUS*, var.  $\delta$ . Great Hairy Wood-rush. E. B. 737. May—June. P.

Woods and mountainous districts, very common. Rocky and woody situations on the banks of the Irwell and Goyt.

2. *L. PILOSA*. WILLD. *J. PILOSUS*. L. Broad-leaved Hairy Wood-rush. E. B. 736. April. P.

Woods, in dry situations. Very common.

3. *L. CAMPESTRIS*. WILLD. *J. CAMPESTRIS*. L. Field Wood-rush. E. B. 672. April—May. P.

Dry pastures. Very common.

4. *L. MULTIFLORA*. LEJ. *LUCIOLA CONGESTA*. SM. *L. CAMPESTRIS*, var.  $\beta$ . HOOK. *J. CAMPESTRIS*, var.  $\gamma$ . Many-headed Bog Wood-rush. E. B. S. 2718. May. P.

Moorish and turfy places, and dry parts of woods. Common.

## CLASS. HEXANDRIA.

## ORDER. TRIGYNIA.

## RUMEX. LINN. N. O. POLYGONEÆ.

1. R. SANGUINEUS. L. var.  $\beta$ . Green-veined Dock. E. B. 1533. July. P.

Shady places, moist pastures, and sides of ditches. Common.

2. R. CONGLOMERATUS. MURR. R. ACUTUS. SM. HOOK. L. Sharp-pointed Dock. E. B. 724. July. P.

In situations similar to those in which the last species is found. Frequent.

3. R. OBTUSIFOLIUS. L. Broad-leaved Dock. E. B. 1999. July. P.

Road sides and waste places. Abundant.

4. R. CRISPUS. L. Curled Dock. E. B. 1998. June—July. P.

Road sides and waste places. Plentiful.

5. R. HYDROLAPATHUM. HUDS. Great Water Dock. E. B. 2104. July—August. P.

By the side of the Duke of Bridgewater's canal, near Lymm. A pit about half a mile south of Chaddock Hall, Astley. By the side of a pit at Glodwick, near Oldham. In a pit-stead near Messrs. Heald and Wilson's Bleach-works, at Stake-hill, near Middleton.

6. R. ACETOSA. L. Common Sorrel. Green-sauce. E. B. 127. June—July. P.

Meadows and pastures. Abundant. A variety with very narrow leaves is found at Fo Edge.

7. R. ACETOSELLA. L. Sheep's Sorrel. E. B. 1674. May—July. P.

Dry pastures. Frequent.

8. R. ALPINUS. L. Monks' Rhubarb. E. B. S. 2694. July. P.

Near Milnrow; formerly cultivated.

## TRIGLOCHIN. LINN. N. O. ALISMACEÆ.

1. T. PALUSTRE. L. Marsh Arrow-grass. E. B. 366. August.  
P.

Wet, boggy situations. Kersal Moor. Mere Clough. Hale Moss.  
Bedford, near Leigh. Middlebrook, Dean.

All the domestic cattle are fond of the hardy species, which afford an early bit on the sides of Highland mountains, and are greedily eaten where they occur in salt marshes. *Ency. Plants.* 290.

## COLCHICUM. LINN. N. O. COLCHICACEÆ.

1. C. AUTUMNALE. L. Meadow Saffron. E. B. 133. September.  
P.

Said to grow in a field near the river Bollin, below Bowdon. In a field near Middleton.

*C. autumnale*, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties. It is a favourite remedy in dropsy, particularly hydrothorax, and in humoral asthma; but as it does not differ in its mode of action from squill, and is more uncertain in its operation, it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained; and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, diminishing the action of the system.—*Ency. Plants.* 293. This drug, owing either to individual differences in constitutional susceptibility, or to irregularities in the strength of its preparations, appears singularly variable in energy, so that what occasions no effect at all upon one individual, excites alarming symptoms in another. So small a dose as two tea-spoonfuls of the wine of colchicum has seemed sufficient in some constitutions to occasion fatal poisoning.

## ALISMA. LINN. N. O. ALISMACEÆ.

1. A. PLANTAGO. L. Great Water Plantain. E. B. 837. July.  
P.

Wet ditches, streams, and ponds; everywhere.

2. A. RANUNCULOIDES. L. Lesser Water Plantain. E. B. 326.  
June—July. P.

Baguley Moor.

## CLASS. OCTANDRIA.

## ORDER. MONOGYNIA.

## ACER. LINN. N. O. ACERACEÆ.

1. A. PSEUDO-PLANTANUS. L. Greater Maple. Sycamore.  
E. B. 303. May—June. T.

Hedges, plantations, &c. On the banks of the Irwell, between Agecroft Bridge and Clifton Aqueduct.

It flourishes best in open places and sandy ground, but will thrive very well in richer soil. It grows quick, and is easily transplanted; bears cropping, and grass flourishes under its shade. The wood is soft, and very white. The turners form it into bowls, trenchers, &c. If a hole is bored into the body of the tree when the sap rises in the spring, it discharges a considerable quantity of a sweetish watery liquor, which is used in making wines, and, if inspissated, affords a fine white sugar. The pollen appears globular in the microscope, but if touched with anything moist, these globules burst open with four valves, which then appear in form of a cross. W. 493.

2. *A. CAMPESTRE*. L. Common Maple. E. B. 304. May—June. T.

Hedges, plantations, &c. Rare. In a hedge in Medlock Vale, near Bank Bridge. Near Gorton. Between Hyde and Hatherlow.

### CHLORA. LINN. N. O. GENTIANEÆ.

1. *C. PERFOLIATA*. L. Yellow-wort. Yellow Centaury. E. B. 60. July—August. A.

Various places in the neighbourhood of Ringway, Cheshire.

### ERICA. LINN. N. O. ERICACEÆ.

1. *E. TETRALIX*. L. Cross-leaved Heath. E. B. 1014. July—August. Sh.

Heaths, mosses, and moors. Abundant.

2. *E. CINEREA*. L. Fine-leaved Heath. E. B. 1015. July—August. Sh.

Heaths and moors; especially on the hills beyond Bury, Oldham, Staly Bridge, and on Alderley Edge, plentiful. Kersal Moor, sparingly.

3. *E. ARBOREA*. Shrubby Heath. May. Sh.

In Mr. Rhodes' stone quarry, near Hadfield railway station.

This pretty shrub was found a few years since in this locality, and produced beautiful white flowers. It was about two feet high, and grew out of a fissure in a large fossil *Sigillaria*; as the people living in the district had never seen a plant like it, they thought that the old tree had sprouted again.

### CALLUNA. SALISB. N. O. ERICACEÆ.

1. *C. VULGARIS*. SALISB. Common Ling. E. B. 1013. July—August. Sh.

Heaths, moors, and mosses. Abundant.

Flowers sometimes white.

var. *β. tomentosa*.

Is found on Alderley Edge, Hale Moss, and in Mere Clough.

" Flower of the waste ! the heath-fowl shuns  
 For thee the brake and tangled wood,  
 To thy protecting shade she runs,  
 Thy tender buds supply her food.  
 Her young forsake her downy plumes  
 To rest upon thy opening blooms."

MRS. GRANT.

## VACCINIUM. LINN. N. O. ERICACEÆ.

1. V. MYRTILLUS. L. Common Bilberry. Whimberry. Black Whortleberry. E. B. 456. May—June. Sh.

Woods, heaths, and mountainous places. Abundantly.

*Myrtillus* is an elegant and also a fruit-bearing plant. The young, fresh, green leaves, and wax-like red flowers, appear in May, and towards autumn the leaves grow darker and more firm, and the ripe berries are gathered in the north for tarts, and in Devonshire are eaten with clotted cream.—*Eng. Bot.* The berries are very acceptable to children, eaten by themselves, or with milk, or in tarts. The moor game live upon them in the autumn. The juice stains paper or linen purple. Goats browse upon the plant; sheep are not fond of it; horses and cows refuse it.—*Withering.* The berries have an astringent quality. The Highlanders eat them with milk, and make them into tarts and jellies, which last they mix with whiskey, to give it a relish to strangers.—*Ency. Plants.* 321.

2. V. VITIS-IDÆA. L. Cow-berry. Red Whortleberry. E. B. 598. May—June. Sh.

Hilly districts beyond Staly Bridge, Oldham, Bury, and Rochdale; plentiful.

3. V. OXYCOCCOS. L. Cranberry. Marsh Whortleberry. E. B. 319. June. Sh.

Heaths, moors, and mosses, in boggy situations. Plentiful.

## EPILOBIUM. LINN. N. O. ONAGRARIÆ.

1. E. ANGUSTIFOLIUM. L. Rosebay Willow-herb. Persian, French, or Flowering Willow. E. B. 1947. July. P.

Barton Moss, plentiful. Rocks at Shawforth, beyond Rochdale. Rocks at Seal-bark, Greenfield, sparingly.

*E. Angustifolium* is a native of most parts of Europe. It is valuable in shrubberies, as thriving under the drip of trees, and succeeds everywhere, even in the smoke of cities, and in parks. It is a good plant to adorn pieces of water, being hardy, of rapid increase, not much relished by cattle, and very showy when in flower. According to Haller, the young shoots are eatable, although an infusion of the plant stupifies. As fodder, goats are said to be extremely fond of it; cows and sheep eat it.—*Ency. Plants.* 312.

2. E. HIRSUTUM. L. Great Hairy Willow-herb. Codlings and Cream. E. B. 838. July—August. P.

Sides of ditches, running streams, and rivers. Common.

3. *E. PARVIFLORUM*. SCHRIB. *E. HIRSUTUM*, var.  $\beta$ . L. Small-flowered Hoary Willow-herb. E. B. 795. July. P.

Boggy situations. Hale Moss, plentiful. Rosthern Mere. Also near Clewarth Hall, Tyldesley, Shackerley, and Westhoughton. Kersal Moor. Ditches and boggy places in Reddish Vale; and many other places.

4. *E. MONTANUM*. L. Broad Smooth-leaved Willow-herb. E. B. 1177. June—July. P.

Woods, groves, and shady situations. Very common.

5. *E. PALUSTRE*. L. Round-stalked Marsh Willow-herb. E. B. 346. July. P.

Sides of ditches and watery places. Common.

6. *E. TETRAGONUM*. L. Square-stalked Willow-herb. E. B. 1948. July. P.

Sides of ditches and moist situations. Common.

#### DAPHNE. LINN. N. O. THYMELEÆ.

1. *D. LAUREOLA*. L. Spurge Laurel. E. B. 119. February—March. Sh.

On a woody bank near the river Bollin, below Cotterill Wood.

*D. Laureola* is valuable in the shrubbery, as thriving under the shade and drip of other trees, and never growing to an unshapely size and figure, and in the nursery, as affording stocks for the more rare species. The roots and other parts of the plant possess similar qualities to those of the *Mezereum*.—*Ency. Plants*. 324.

#### ORDER. TRIGYNIA.

#### POLYGONUM. LINN. N. O. POLYGONEÆ.

1. *P. BISTORTA*. L. Great Bistort. Snake-weed. Patience Dock. E. B. 509. June. P.

Moist meadows. Very common.

*P. Bistorta*, being one of the strongest vegetable astringents, might well be applied to the purpose of tanning leather, if it could be procured in sufficient quantity. The young shoots were formerly eaten in herb puddings in the north of England, where the plant is known by the name of Easter Giant, and about Manchester they are substituted for greens, under the name of Patient Dock. The root was formerly considered to be alexipharmic and sudorific.—*Ency. Plants*. 326.

2. *P. AMPHIBIUM*. L. Amphibious Persicaria. E. B. 436. July—August. P.

Ponds, lakes, and ditches, about Stretford, Sale, Altrincham, and Bowdon; and in great abundance at Mere Mere.



*P. amphibium* is one of the most difficult weeds to eradicate from newly recovered alluvial lands, and has no equal in this respect, unless *Equisetum*. The roots, which in the water are properly stems, are found to a great depth in such soils; and though, by fallowing, or otherwise stirring the surface, the leaves may be prevented from showing themselves for several years, yet, if fields be allowed to lie a year in grass, the surface will be found abounding with *Polygonum*. Many tracts in Scotland, which have been recovered from rivers and estuaries for an unknown series of years, still abound with this plant, and as under such circumstances it never advances so far as to flower and seed, the individuals must be the same which formerly were suspended in the water. As an aquatic, it has a gay, showy appearance when in flower.—*Ency. Plants*. 326.

Variety *terrestre*, is found upon the dry bank of a wide ditch on the left-hand side of the road beyond Stretford.

3. *P. LAPATHIFOLIUM*. L. Pale-flowered Persicaria. E. B. 1382. July—August. A.

Waste ground and cultivated land, especially potato fields. Common.

A variety with red stems and flowers.

Very common.

A variety with spotted stems.

Also common.

4. *P. PERSICARIA*. L. Spotted Persicaria. E. B. 756. August. A.

Moist ground and waste places. Very common.

5. *P. HYDROPIPER*. L. Biting Persicaria. E. B. 989. August—September. A.

Ditches and watery places. Abundant.

6. *P. MINUS*. HUDS. *P. PERSICARIA*. var.  $\beta$ . L. Small Creeping Persicaria. E. B. 1043. August—September. A.

Sides of ditches and drains, between the village of Chorlton and Jackson's Boat. Ditches in the neighbourhood of Baguley Moor. Hale Moss, plentiful. Lindow Common, near Wilmslow, abundant.

7. *P. AVICULARE*. L. Common Knot-grass. E. B. 1252. Summer months. A.

Waste places and road sides; everywhere.

A very variable plant.

8. *P. CONVULVULUS*. L. Climbing Buckwheat. Black Bindweed. E. B. 941. July—August. A.

Corn fields and plantations. Very common.

All the plants which I have hitherto examined have had the segments of the perianth winged, as in *P. dumetorum*; between which species and the common state of *P. convulvulus*, it seems to form an intermediate link.

## FAGOPYRUM. GÆRT. N. O. POLYGONEÆ.

1. F. ESCULENTUM. MOENCH. POLYGONUM FAGOPYRUM. L. SM. HOOK. Buckwheat. E. B. 1044. July—August. A.

Cultivated fields; an occasional visitant. Also in woods, but sown for the use of game.

## ORDER. TETRAGYNIA.

## PARIS. LINN. N. O. ASPARAGEÆ.

1. P. QUADRIFOLIA. L. Herb Paris. True Love. E. B. 7. May—June. P.

Cotterill Wood. A wood in the neighbourhood of Bury. Dean Church Clough. Near Mellor, Derbyshire.

## ADOXA. LINN. N. O. ARALIACEÆ.

1. A. MOSCHATELLINA. L. Tuberous Moschatel. E. B. 453. May. P.

Hedge banks, woods, and shady places. Common. Woody banks of the Irwell, near Clifton Aqueduct. Hough End Wood. Many other places.

## ELATINE. LINN. N. O. ELATINEÆ.

1. E. HEXANDRA. D. C. E. TRIPETALA. SM. Small Hexandrous Water-wort. E. B. 955. July—August. A.

Borders of Mere Mere, Cheshire.

## CLASS. ENNEANDRIA.

## ORDER. HEXAGYNIA.

## BUTOMUS. LINN. N. O. ALISMACEÆ.

1. B. UMBELLATUS. L. Flowering Rush. E. B. 651. June—August. P.

Pit in a field near Smedley lane, opposite the toll-bar, introduced. Dallum Brook, near the east side of the Liverpool railway, near Warrington (Mr. W. Wilson).

## CLASS. DECANDRIA.

## ORDER. MONOGYNIA.

## PYROLA. LINN. N. O. ERICACEÆ.

1. *P. MEDIA*. SWARTZ. Intermediate Winter-green. E. B. 1945.  
June. P.

Near Seal-bark, Greenfield. In the neighbourhood of Mottram.

## ANDROMEDA. LINN. N. O. ERICACEÆ.

1. *A. POLIFOLIA*. LINN. Marsh Andromeda. Wild Rosemary.  
E. B. 713. Sh.

All mosses in the neighbourhood of Manchester.

## ARCTOSLAPHYLOS. ADANS. N. O. ERICACEÆ.

1. *A. UVA-URSI*. SPR. *ARBUTUS UVA-URSI*. L. SM. HOOK.  
Red Bear-berry. E. B. 714. June. Sh.

Seal-bark, Greenfield. Kinder Scout.

It dyes an ash colour, tans leather, the berries are food for grouse and other game, and the leaves are used in medicine. The fresh leaves are inodorous, and have a slightly bitter, astringent taste, leaving a sweet sensation in the mouth. When properly dried and powdered, they acquire an odour similar to hyson tea; but the taste remains the same, the degree of bitterness being increased. The *Uva-ursi* has been brought into notice in modern times as an efficient remedy in nephritic, and even in calculous cases. It has also been recommended in pulmonary complaints.—*Ency. Plants*. 361.

## ORDER. DIGYNIA.

## SCLERANTHUS. LINN. N. O. PARONYCHIEÆ.

1. *S. ANNUUS*. L. Annual Knawel. German Knot-grass. E. B.  
351. July. A.

Cultivated fields, especially in sandy situations. Kersal Moor.  
Fields about Withington. Road sides near Baguley Moor. Fields  
and lanes at Bowdon, plentiful.

*S. annuus* is common throughout Europe on a sandy soil. It flowers about the middle of summer, and sows its seeds very abundantly in the autumn, which produce a crop of young plants that generally survive the winter, or if destroyed, are replaced by another crop, arising from those seeds that happen not to vegetate till spring.—*Eng. Bot.* The Swedes and Germans receive the vapour from a decoction of it into their mouths, to cure the tooth-ache.—*Ency. Plants*. 566.

## CHRYOSPLENIUM. LINN. N. O. SAXIFRAGEÆ.

1. C. ALTERNIFOLIUM. L. Alternate-leaved Golden Saxifrage.  
E. B. 54. April—May. P.

Moist, shady woods. Frequent. Mere Clough. On the right bank of the Mersey, nearly opposite Northen. Cotterill Wood, plentiful. Woods in Clayton Vale, near Hulme's print-works. Brook sides in Shackerley.

It is said to be a powerful cathartic. In the Vosges the plants are used copiously as a salad, under the name of Cresson de Roche.—*Ency. Plants.* 367.

2. C. OPPOSITIFOLIUM. L. Opposite-leaved Golden Saxifrage.  
E. B. 490. March—April. P.

Moist, boggy situations. Very common and plentiful.

## SAXIFRAGA. LINN. N. O. SAXIFRAGEÆ.

1. S. HIRCULUS. L. Yellow Marsh Saxifrage. E. B. 1009.  
July—August. P.

Knutsford Moor, but very sparingly.

2. S. TRIDACTYLITES. L. Rue-leaved Saxifrage, or Whitlow-grass.  
E. B. 501. April—May. A.

On the yard wall of Hough End Hall, Withington.

3. S. GRANULATA. L. White Meadow Saxifrage. E. B. 500.  
May—June. P.

Banks of the Irwell, near Agecroft Bridge. Right bank of the same river near Clifton Aqueduct. In a thicket beyond Agecroft Hall, near the Manchester and Bolton railway. Meadows on each side of a brook, about half a mile beyond Monton Green. Meadows by the brook, Astley, near Leigh. Meadows on each side of the road leading from Broughton toll-bridge to the suspension bridge.

## SAPONARIA. LINN. N. O. CARYOPHYLLÆ.

1. S. OFFICINALIS. L. Common Soap-wort. E. B. 1060.  
August—September. P.

Various places on the banks of the Medlock, between Clayton Bridge and Ardwick Lime-kilns, plentiful. On the left bank of the Mersey between Northen and Cheadle. On the left bank of the Mersey in Marple Vale. Near Hollins Ferry.

The leaves form a lather like soap, and take out spots of grease in the same manner. The whole plant is bitter, and was formerly used to cure the itch.—*Ency. Plants.* 370.

## ORDER. TRIGYNIA.

## SILENE. LINN. N. O. CARYOPHYLLÆ.

1. *S. INFLATA*. SM. *CACUBALUS* BEHEN. L. Bladder Campion, or Catch-fly. E. B. 164. June—August. P.

At the bottom of Hope-lane, near Eccles, but sparingly. In the lane near Arden Mill, Cheshire, also sparingly. Fields near Marple Hall.

## STELLARIA. LINN. N. O. CARYOPHYLLÆ.

1. *S. NEMORUM*. L. Wood Stitch-wort. E. B. 92. May—June. P.

Banks of the Irwell, from Ringley Bridge to Barton Aqueduct, plentiful. Red-brow Wood, near Didsbury, plentiful. Banks of the Mersey, and woods in Marple Vale, plentiful. Many other places.

2. *S. MEDIA*. WITHER. *ALSINE MEDIA*. L. Common Chick-weed, or Stitchwort. E. B. 537. March—November. A.

A common garden weed.

var.  $\beta$ . *major*.

Woods, and moist, shady situations. Common.

A much larger plant than the preceding, possessing uniformly ten stamens; whereas, the var. *a*. has not more than three or five.

3. *S. HOLOSTEA*. L. Greater Stitch-wort. E. B. 511. May. P.

Woods and hedges. Very plentiful.

4. *S. GRAMINEA*. L. Lesser Stitch-wort. E. B. 803. May—August. P.

Hedge banks and woods. Very plentiful. A variety with petals twice as long as the segments of the calyx, is found in various places in Leigh parish (Mr. John Martin). Also common about Manchester.

5. *S. ULIGINOSA*. MURR. *S. GRAMINEA*, var.  $\gamma$ . L. Bog Stitch-wort. E. B. 1074. June—July. A.

Ditches and boggy situations. Common.

## ARENARIA. LINN. N. O. CARYOPHYLLÆ.

1. *A. SERPYLLIFOLIA*. L. Thyme-leaved Sand-wort. E. B. 923. June—September. A.

Walls, and dry sandy places. Rare. Cultivated fields about Bowdon, plentiful.

## MÆHRINGIA. LINN. N. O. CARYOPHYLLÆÆ.

1. *M. TRINERVIS*. CLAIRV. *ARENARIA TRINERVIS*. L. SM. HOOK. Plantain-leaved Chickweed, or Sand-wort. E. B. 1483. May—June. A.

Shady hedge banks. Frequent.

## ALSINE. WAHL. N. O. CARYOPHYLLÆÆ.

1. *A. RUBRA*. WAHL. *ARENARIA RUBRA*. L. SM. HOOK. Purple Sand-wort. E. B. 852. June—July. A.

Kersal Moor, plentiful. Baguley Moor. On a remnant of Sale Moor, by the Duke of Bridgewater's Canal. Monton Green.

"Among the loose and arid sands,  
The humble *Arenaria* creeps;  
Slowly the purple star expands,  
But soon within its calyx sleeps."

A. STRICKLAND.

## ORDER. PENTAGYNIA.

## SEDUM. LINN. N. O. CRASSULACEÆÆ.

1. *S. TELEPHIUM*. L. Orphine, or Live-long. E. B. 1319. August—September. P.

Near the Middle brook, Chew Moor, near Bolton, plentiful. Atherton, near Leigh, very sparingly. On a hedge bank near Agecroft Bridge. Hedge banks about half a mile south-east of Withington Old Hall. At Hopwood, near Middleton.

2. *S. DASYPHYLLUM*. L. Thick-leaved White Stone-crop. E. B. 656. June—July. P.

On the garden wall at the residence of Captain Clarke, near Hyde, Cheshire (Mr. J. Sidebotham).

3. *S. ACRE*. L. Biting Stone-crop. Wall Pepper. E. B. 839. July—August. P.

Hedge banks near Bowdon and Altrincham, common.

## OXALIS. LINN. N. O. OXALIDEÆÆ.

1. *O. ACETOSELLA*. L. Common Wood Sorrel, or Cuckoo-bread. E. B. 762. April—May. P.

Woods and shady places. Common.

2. *O. CORNICULATA*. L. Yellow Procrumbent Wood Sorrel. E. B. 1736. July. A.

This plant I have observed only twice: first, in Broughton, about twenty years ago, on waste ground; and secondly, in Sale, about seven years ago, in a similar situation.

### LYCHNIS. LINN. N. O. CARYOPHYLLÉE.

1. *L. FLOS-CUCULI*. L. Meadow Lychnis. Ragged Robin. E. B. 573. May—August. P.

Moist meadows, woods, and pastures. Plentiful.

2. *L. VESPERTINA*. SIBTH. *L. DIOICA*, var.  $\beta$ . L. SM. HOOK. White, or Night-flowering Campion. E. B. 1580. June—August. A or B.

Cultivated fields, about Chorlton, Withington, &c., and various other places beyond the Mersey, plentiful.

A variety with flesh-coloured flowers frequently occurs in the above-mentioned situations.

3. *L. DIURNA*. SIBTH. *L. DIOICA*, var.  $\alpha$ . L. SM. HOOK. Red Campion. E. B. 1579. May—August. P.

Woods and hedge banks. Very common.

A variety of this species, with white flowers, frequently occurs, which is very different in habit and appearance from *L. vespertina*, with which, on a superficial examination, it might be confounded.

4. *L. GITHAGO*. LAM. *AGROSTEMMA GITHAGO*. L. SM. HOOK. Corn Cockle. E. B. 741. July—August. A.

Cultivated fields. Common.

### MALACHIUM. FRIS. N. O. CARYOPHYLLÉE.

1. *M. AQUATICUM*. FR. *CERASTIUM AQUATICUM*. L. SM. HOOK. Water Mouse-ear Chickweed. E. B. 538. August—September. P.

Moist ditch banks. Very rare. A ditch by the side of the road leading from Rusholme to Moss-side, sparingly. By the side of ditches and drains near the footpath which leads from the village of Chorlton to Jackson's Boat.

### CERASTIUM. LINN. N. O. CARYOPHYLLÉE.

1. *C. GLOMERATUM*. THUIL. *C. VULGATUM*. L. SM. HOOK. Broad-leaved Mouse-ear Chickweed. E. B. 789. April—June, and September—October. A.

The stations in which this species is found are chiefly confined to the south, west, and south-west of Manchester; as, for instance, about Stretford, Chorlton, Withington, and other places beyond the Mersey, common.

2. *C. TRIVIALE*. LINK. *C. VISCOSUM*. L. SM. HOOK. Narrow-leaved Mouse-ear Chickweed. E. B. 790. May—September. P.

Meadows, pastures, and road sides. Abundant.

3. *C. SEMIDECANDRUM*. L. Little Mouse-ear Chickweed. E. B. 1630. April—May. A.

Behind the grand stand, Kersal Moor, in tolerable plenty. On the bridge which crosses the Mersey, between Stretford and Cross Street.

## SPERGULA. LINN. N. O. CARYOPHYLLÆ.

1. *S. ARVENSIS*. L. Corn Spurrey. E. B. 1535. June—August. A.

Cultivated fields and waste places, especially on a sandy soil. Lower Broughton and Kersal Moor, plentiful. About Withington, Altrincham, and Bowdon.

*S. arvensis* is a common weed, in sandy soils, in Scotland called yarr, and in Norfolk, pickpurse. In the Netherlands and in Germany it is sown on corn stubbles, to supply a bite for the sheep during winter. It may be sown and reaped in eight weeks, either in autumn or spring. It is said to enrich the milk of cows, so as to make it afford excellent butter; and the mutton fed on it is preferable to that fed on turnips. Hens eat spurrey greedily, and it is supposed to make them lay a great number of eggs, whether in hay, or cut green, or pasture. Von Thær observes, it is the most nourishing, in proportion of its bulk, of all forage, and gives the best flavoured milk and butter. It has been recommended to be cultivated in England: but it is not likely that such a plant can ever pay the expense of seed and labour in this country, even on the poorest soil; or at all events, as Professor Martyn observes, we have many better plants for such soils. *Ency. Plants.* 390.

1. *S. NODOSA*. L. Knotted Spurrey. E. B. 694. July—August. P.

Moist or boggy situations. Rare. Boggy margins of pits on Baguley Moor. Hale Moss. Borders of Rosthern Mere, Cheshire.

## CLASS. DODECANDRIA.

### ORDER. MONOGYNIA.

## LYTHRUM. LINN. N. O. LYTHRARIÆ.

1. *L. SALICARIA*. L. Spiked Purple Loose-strife. E. B. 1061. July—August. P.

Boggy situations, ditch bottoms, and margins of ponds. Common.

*L. Salicaria*, although a common British plant, is considered a handsome border flower, and several varieties, differing chiefly in size, are in cultivation. The whole plant is astringent, and has been used in medicine and tanning.—*Ency. Plants.* 398.



## ORDER. DIGYNIA.

## AGRIMONIA. LINN. N. O. ROSACEÆ.

1. A. EUPATORIA. L. Common Agrimony. E. B. 1335. July—August. P.

In Mr. Drinkwater's wood, between Agecroft Bridge and Prestwich. Near Altrincham. Botany Bay Wood, Chat Moss. Woods adjoining Cotterill Wood.

*A. Eupatoria* was formerly regarded as a remedy of much importance, as a tonic and deobstruent; but though still retained in the London *Materia Medica*, is seldom or never prescribed. The root, in spring, is sweet scented, and the flowers, fresh gathered, smell like apricots. When the plant is coming into flower, it will dye wool a full nankeen colour, and, gathered in September, a darker yellow. It has been used for dressing leather. Sheep and goats eat it; but horses, cows, and swine, refuse it.—*Ency. Plants.* 398.

## ORDER. TRYGYNIA.

## RESEDA. LINN. N. O. RESEDACEÆ.

1. R. LUTEOLA. L. Dyers' Rocket. Yellow-weed, or Weld. E. B. 320. June—August. A.

This plant was formerly not unfrequent in Broughton, on the banks of the Irwell; also near Clifton Aqueduct; but has not been seen for many years. Near Hollins Ferry, where it has every appearance of being truly wild (Mr. J. Martin).

It affords a most beautiful yellow dye, for cotton, woollen, mohair, silk, and linen. Blue cloths are dipped in a decoction of it, in order to become green. The yellow colour of the paint called Dutch pink is obtained from this plant. The entire plant, when it is about flowering, is pulled up, and employed both fresh and dried. Mr. Swayne observes, that it is one of the first plants which grow on the rubbish thrown out of coal pits. The roots and bottom leaves are formed from the fallen seeds before winter, and it happens in this as in many other cases, that the wild plant is biennial, whilst the cultivated plant, growing from seed sown in the spring, is annual. It is an observation of Linnæus's, that the nodding spike of flowers follows the course of the sun, even when the sky is covered; pointing towards the east in the morning, to the south at noon, westward in the afternoon, and to the north at night.—*Ency. Plants.* 399.

2. R. LUTEA. L. Base Rocket. Wild Mignonette. E. B. 321. July—August. A.

This plant formerly existed near Bowdon Church, in a sand-hole, which is now partially built on. I observed it growing, in 1838, in a plantation on the left hand side of the road leading from Pilkington to Bury; and, during the year 1848, in a field near Jackson's Boat.

## ORDER. DODECAGYNIA

## SEMPERVIVUM. LINN. N. O. CRASSULACEÆ.

1. S. TECTORUM. L. Houseleek. E. B. 1320. July—August.  
P.

Walls and roofs. Common.

*S. tectorum*, common on the roofs of buildings, is used by country people as an application to burns, inflammations, and ulcers, alone, in a bruised state, or mixed with cream. Linnæus informs us, that houseleek is a preservative to the coverings of houses in Smoland. It may easily be made to cover the whole roof of a building, whether of tiles, thatch, or wood, by sticking the offsets on with a little earth or cow dung.—*Ency. Plants.* 408.

1

## CLASS. ICOSANDRIA.

## ORDER. MONOGYNIA.

## PRUNUS. LINN. N. O. ROSACEÆ.

1. P. INSITITIA. L. Wild Bullace Tree. E. B. 841. May. Sh.

Woods and hedges. Not unfrequent.

The fruit is acid, but so tempered by a sweetness and roughness, as not to be unpleasant, particularly after having been mellowed by the frost. A conserve is prepared by mixing the pulp with thrice its weight of sugar. The bark of the roots and branches is considerably styptic. An infusion of the flowers, sweetened with sugar, is a mild purgative, not improper for children. *W.* 601.

2. P. SPINOSA. L. Sloe, or Black-thorn. E. B. 842. April—May. Sh.

Woods, hedges, and thickets. Common.

This is not well adapted to grow in hedges, because it spreads its roots wide, and encroaches upon the pasturage; but it makes a good dead fence. The wood is hard and tough, and is formed into walking sticks, and teeth for rakes. From effects which I have repeatedly observed to follow the prick of the thorn, I have reason to believe there is something poisonous in them, particularly in autumn. The tender leaves dried are sometimes used as a substitute for tea, and are, I believe, the best substitute that has yet been tried. The fruit, bruised and put into wine, gives it a beautiful red colour, and a pleasant, subacid roughness. Letters written upon linen or woollen, with the juice of the fruit, will not wash out. Sheep, goats, and horses, eat the leaves. Cotton may be dyed of a rose colour by the juice of wild plums, combined with muriatic or sulphuric acid. *W.* 601.

3. P. PADUS. L. Bird Cherry. Black Dog-berry. E. B. 1383.  
May—June. T.

Woods, hedges, and thickets. Frequent. Reddish Vale, abundant.  
Near Marple Aqueduct, plentiful. Coutacre Clough, Little Hulton.

4. *P. AVIUM*. L. *P. CERASUS*, var. *δ*. SM. *P. CERASUS*. HOOK.  
Wild Cherry Tree. Merry. E. B. 706. May. T.

Woods and hedges. Frequent. Prestwich Clough. By the side of the Bolton canal, nearly opposite Agecroft Hall. Arden Wood, Reddish Vale. Near Marple, plentiful. A wood near the river Bollin, below Dunham, plentiful.

## ORDER. PENTAGYNIA.

### CRATÆGUS. LINN. N. O. ROSACEÆ.

1. *C. OXYACANTHA*. L. Hawthorn. White-thorn. May. E. B. 2504. May—June. T.

Woods and hedges; everywhere, but planted. Charlesworth Coombs, near Mottram, and at Staly Brushes, where it has every appearance of being truly wild, and is particularly remarkable for its twisted branches.

*Hawthorn* is the best hedge plant in Europe, and also furnishes some highly ornamental varieties, especially the double blossomed and scarlet blossomed.—*Ency. Plants*. 425.

### PYRUS. LINN. N. O. ROSACEÆ.

1. *P. MALUS*. L. Crab-tree. E. B. 179. May. T.

Woods, hedges, and thickets. Common.

*P. Malus* is the most popular of British fruits. None can be brought to so high a degree of perfection with so little trouble; and of no other are there so many excellent varieties in general cultivation, calculated for almost every soil, situation, and climate, which our islands afford. Very good apples are grown in the Highlands and Orkneys, and even in the Shetland Isles, as well as in Devonshire and Cornwall. Some sorts are ripe in the beginning of July, and others, which ripen later, will keep till July. Unlike other fruits, those that ripen latest are the best. The tree attains a great age, is in general very prolific, and the timber is valuable for the turner, millwright, and cabinet-maker. The apple may be propagated by layers, and many sorts by cuttings; but the usual mode is by grafting on the crab stocks, and for dwarfing, on stocks of the paradise apple.—*Ency. Plants*. 425.

2. *P. AUCUPARIA*. GÆRTN. *SORBUS AUCUPARIA*. L. Quicken-tree. Mountain Ash. Rowen-tree. E. B. 387. May. T.

Woods and banks of rivers. Frequent.

The wood is soft, tough, and solid (excellent for hoops, and for bows next to yew). The berries, dried and reduced to powder, make wholesome bread; and an ardent spirit may be distilled from them, which has a fine flavour, but is small in quantity. The berries, too, infused in water, make an acid somewhat like perry, which is drunk by the poorer people in Wales. This tree appears to have been highly esteemed by the Druids, and is still found more frequently than any other in the neighbourhood of Druidical circles in the Scotch Highlands. Dr. Pulteney informs us that even in these more enlightened times the natives of the north believe in the efficacy of a small branch carried about them, as a charm against witchcraft and enchantment. In one part of Scotland, the sheep and lambs are on May day made to pass through a hoop of Roan wood. W. 605. Shipwrights, on the banks of the river Trent, when a ship stuck in her launch, used to gather a bush of this tree before sunrise, whilst the dew was on it, and whip the bows of the ship with it, to unbewitch her.

## SPIRÆA. LINN. N. O. ROSACEÆ.

1. *S. ULMARIA*. L. Meadow-sweet. Queen of the Meadows.  
E. B. 960. July—September. P.

Moist ditch banks and woods. Abundant.

## ORDER. POLYGYNIA.

## ROSA. LINN. N. O. ROSACEÆ.

1. *R. VILLOSA*. L. Soft-leaved Rose. *R. MOLLIS*. E. B. 2459.  
June. Sh.

Woods and hedges. Frequent. In the neighbourhood of Chorlton and Withington, common. Various places near Prestwich. On a sloping bank along the canal side, between Agecroft Hall and Clifton Aqueduct, in company with *R. TOMENTOSA*. Also common near Clifton Aqueduct. Woods and thickets near the railway at Clifton, plentiful.

2. *R. TOMENTOSA*. SM. Downy-leaved Dog Rose. E. B. 990.  
and 1896. June. Sh.

Sloping bank along the canal side between Agecroft Hall and Clifton Aqueduct, sparingly. Near the highway beyond Stretford, about a quarter of a mile from the aqueduct. Hedges at the Red-brows, between Barlow Hall and Didsbury, in tolerable plenty. Frequent near Withington Old Hall.

3. *R. CANINA*. L. Common Dog Rose. E. B. 992. June—  
July. Sh.

Woods and hedges. Very common.

The leaves of every species of Rose, but especially of this, are recommended as a substitute for tea; giving out a fine colour, a sub-astringent taste, and a grateful smell, when dried, and infused in boiling water. Those moss-like, prickly excrescences, which are frequently found upon the branches of roses, are the habitations of the *cynips Roseæ*. This excrescence was formerly in repute as a medicine, and was kept in shops under the name of Bedeguar. An infusion of the full-blown blossoms of all the roses, especially the paler kinds, is purgative; but the petals of the red roses, gathered before they expand, and dried, are astringent. W. 618.

- var. *β. sarmentacea*. ROSA SARMENTACEA. SM. E. B. S.  
2595.

Is frequently met with near Agecroft Hall. Chorlton.

"We could have pluck'd each flower that grows,  
The violet and the bonny rose  
Which blossoms on the brier."

SAMUEL BAMFORD.

4. *R. ARVENSIS*. HUDS. White Trailing Dog Rose. E. B. 188.  
June—July. Sh.

Woods, hedges, and thickets. Abundant.

## RUBUS.\* LINN. N. O. ROSACEÆ.

1. *R. IDÆUS*. L. Common Raspberry. E. B. 2442. June. P.

Damp woods and shady places. Common.

The fruit is extremely grateful as nature presents it; but made into a sweetmeat, with sugar, or fermented with wine, the flavour is improved. It is fragrant, sub-acid, and cooling. It dissolves the tartarous concretions of the teeth; but for this purpose it is inferior to the strawberry. The white berries are sweeter than the red, but they are generally contaminated by insects. The fresh leaves are the favourite food of kids. W. 620.

2. *R. SUBERECTUS*. ANDERS. Red-fruited Bramble. E. B. 2572. July—August. P.

Moist woods and heathy places. Big Wood, near Staly Hall, abundant. Near Carrington and Chat Mosses, Mere Clough, plentiful. Frequent about Chorlton and Hough End. Walker's Meadows, near Staly Bridge. Offerton Rough, near Stockport. Many other places.

The ripe fruit of *R. suberectus*, var. *a.* is almost black, not red, as the English name given by Smith would lead one to suppose.

3. *R. PLICATUS*. W. and N. Plaited-leaved Bramble. E. B. S. 2714. June—July. P.

Alderley Edge, plentiful. Common by ditch sides in the neighbourhood of Sale. Between Bucklow Hill and Knutsford, by the road side. Hale Moss. Lane opposite Hough End Hall. Lane leading to Hough End Hall.

4. *R. NITIDUS*. W. and N. Smooth Shining Bramble.

Found near Hough End, in the places above-mentioned, and upon Hale Moss.

This, I think, is not distinct from the preceding species, but is merely a dwarf state of it.

5. *R. CORYLIFOLIUS*. SM. Hazel-leaved Bramble. E. B. 827. July. P.

Haughton Vale, near the left bank of the Tame, about twenty yards from the wooden bridge. Common about Gorton, and Withington. Lane opposite Hough End Hall. Lane leading to Hough End Hall. Road side below Chorlton Chapel.

6. *R. VULGARIS*. W. and N. Common Bramble. July. P.

Hedges and thickets. Very common.

*R. corylifolius* has the lower leaflets overlapping and sessile; *R. vulgaris* has them shortly stalked and not overlapping, of which this species is probably a mere variety.

\* This is an extremely difficult genus, and I give my opinions upon the species with great diffidence. But I have paid considerable attention to its study for the last seven years; and, although I may err in some cases, still I shall be no more unfortunate than some other more learned authors. Some of the species will, doubtless, prove to be mere varieties.

7. *R. MACROPHYLLUS*.  $\beta$ . *Schlechtendalii*. W. and N. Large-leaved Bramble. E. B. S. 2625. July. P.

Lane between Bucklow Hill and Mere Mere. Alderley Edge. About Wilmslow, common. Hedge on the left side of the road, near Mersey Bridge, Stretford.

8. *R. AFFINIS*. W. and N. Ovate Hairy Bramble. July. P.  
Hedges and thickets. Common.

9. *R. RHAMNIFOLIUS*. W. and N. Buck-thorn-leaved Bramble. E. B. S. 2604. July. P.

Hedges and thickets. Common. Frequent about Hough End, Altrincham, Bowdon, Timperley, Sale, Stretford, and Withington.

This species may be distinguished by its remarkably flat and roundish leaflets. Flowers with a slight tinge of red.

10. *R. LEUCOSTACHYS*. SM. White-clustered Bramble. E. B. S. 2631. July. P.

Reddish and Haughton Vales, plentiful. Woods near Compstall Bridge, and Marple, plentiful. Abundant in and about Cotterill Clough.

Easily distinguished by its nearly orbicular coriaceous leaflets, and its long, contracted panicle, and large flowers.

11. *R. FRUTICOSUS*. L. Common Bramble, or Blackberry. E. B. 715. July. P.

Abundant about Ringway, Cheshire. About Rosthern, plentiful. Near Bucklow Hill. Side of the road, leading to Bollin Bridge, below Dunham Park. Left side of the road leading from Stockport to Marple.

12. *R. VESTITUS*. W. and N. *R. VILICAULIS*. LEIGHT. FL. SH. *R. LEUCOSTACHYS*, var.  $\beta$ . BAB. MAN. July. P.

Plentiful in and about Bredbury Wood, Cheshire. Near the Manchester and Bolton railway, at Clifton, plentiful. Prestwich Clough, sparingly.

13. *R. BORRERI*. Bell Salt.  
Reddish Vale, in woods and hedges, plentiful.

14. *R. SPRENGELII*. WEIHE.

Hedges and thickets. Very common. Woods, hedges, and thickets, in Haughton and Reddish Vales, plentiful. In the neighbourhood of Pilkington and Prestwich. About Chorlton and Withington, frequent. Near Altrincham. Many other places.

This species may be known by its generally, though not always, procumbent habit, its remarkably hooked prickles, its crumpled petals with reflexed margins, varying from white to a beautiful pink.

15. *R. CARPINIFOLIUS*. W. and N. Hornbeam-leaved Bramble.  
E. B. S. 2664. July. P.

Hedges and thickets. Not uncommon. Reddish and Haughton Vales, plentiful. Agecroft, Prestwich, and Broughton. Near Eccles. Frequent about Chorlton and Withington.

16. *R. RUDIS*. WEIHE.

Hough End, sparingly.

17. *R. LEJEUNII*. W. and N. *R. GLANDULOSUS*. S. M. Lejeune's Bramble. E. B. S. 2883. July. P.

Banks of the Tame, in Haughton Vale, very plentiful. Woody banks of the Mersey, between Compstall Bridge and Marple Aqueduct.

18. *R. RADULA*. WEIHE.

Banks of the Tame, in Haughton Vale, near Arden Mill.

I do not see how this species is to be distinguished from *R. Lejeunii*.

19. *R. KÖHLERI*. W. and N. Köhler's Bramble. E. B. S. 2605. July. P.

Hedges and thickets. Very common.

This species is extremely variable, and produces several varieties; one of the most remarkable is *R. cuspidatus*, which grows in the lane leading down to Reddish Mills.

20. *R. HIRTUS*. W. and N.

Haughton Vale (Mr. J. Sidebotham).

21. *R. DUMETORUM*. W. and N. *R. DIVERSIFOLIUS*. LINDL.  
Bramble of the thickets.

Mostly confined to the south and south-west of Manchester, and rare on the north-east. Chorlton, Stretford, Sale, Baguley, Timperley, and Altrincham, abundant.

This plant is remarkably distinct from any other species with which I am acquainted. It may readily be distinguished by the following characters:—Barren stem, arched, obsolete angular, densely covered with very unequal prickles, which insensibly diminish into innumerable aciculi and glandular setæ. Leaves quinate; leaflets roundish, narrower and cordate at the base, acuminate, sharply and unequally serrated, rugose and somewhat convex on the upper surface; of a deep, lurid green; somewhat hairy above, but more so beneath. Panicle, leafy, with short branches; flowers, congested, remarkably large, with broad white petals; floral leaves, trifid, or single; sepals, hairy, glandular, and setose, reflexed in flower, erect, and often clasping the fruit; fruit, nearly globular, large, with large black grains.

22. *R. CÆSIUS*. L. Blue Bramble. Dewberry. E. B. 826. July. Sh.

Road side between Stretford and Mersey Bridge, plentiful. Right bank of the Hough End brook, about half a mile before its junction with the Mersey. Banks of the Irwell, near Clifton Aqueduct.

23. *R. SAXATILIS*. L. Stone Bramble. E. B. 2233. July. P.

On rocks, in Bamford Wood.

24. *R. CHAMÆMORUS*. L. Mountain Bramble. Cloud-berry.  
E. B. 716. July. P.

Near Bill o' Jack's, Greenfield.

FRAGARIA. LINN. N. O. ROSACEÆ.

1. *F. vesca*. L. Wood Strawberry. E. B. 1524. May—  
June. P.

Woods and moist hedge banks. Common.

COMARUM. LINN. N. O. ROSACEÆ.

1. *C. palustre*. L. Purple Marsh Cinque-foil. E. B. 172.  
July. P.

Margins of ponds and old pitsteads. Abundant.

POTENTILLA. LINN. N. O. ROSACEÆ.

1. *P. anserina*. L. Silver-weed. Wild Tansy. E. B. 861.  
June—July. P.

Cultivated fields, waste places, and road sides. Very common.

2. *P. reptans*. L. Common Creeping Cinque-foil. E. B. 862.  
June—August. P.

Beyond Stretford, on the left hand side of the road, by the side of a deep drain. Hedge banks on the left hand side of the lane leading from Stretford to Chorlton. Near the footpath leading from Chorlton Church to Jackson's Boat, plentiful. Near Plymouth Grove, Ardwick. About Tyldesley Banks. Common near Gorton and Reddish.

3. *P. tormentilla*. NESTL. *TORMENTILLA OFFICINALIS*. SM.  
HOOK. Common Tormetil, or Sept-foil. E. B. 863. June—  
August. P.

Woods, moors, and heaths. Abundant.

The roots are still used in most of the Western Isles of Scotland, and in the Orkneys, for tanning leather, for which they are superior even to oak bark. They are first boiled in water, and the leather is then steeped in the cold liquor. They are also used for dyeing a red colour.—*Ency. Plants*. 454. Bulleyn, in his *Book of Simples*, asserts, on the authority of experience of the Norfolk shepherds, that Tormetil in pastures prevents that very destructive disease, the rot in sheep. W. 632.

- var. *β. nemoralis*. SER. *TORMENTILLA REPTANS*. L. SM.  
HOOK. E. B. 864.

Woods and hedge banks. Very common.

Though this plant has been removed from the rank of a distinct species, it appears to me to be fully entitled to that distinction, as I consider its characters are such as to separate it from either *P. Tormentilla* or *P. reptans*.



4. **P. FRAGARIASTRUM. EHRH. FRAGARIA STERILIS. L.**  
 Strawberry-leaved Cinque-foil. Barren Strawberry. E. B. 1785.  
 March—June. P.

Woods, hedges, and thickets. Very common.

### GEUM. LINN. N. O. ROSACEÆ.

1. **G. URBANUM. L. Herb Bennet. Common Avens. E. B.**  
 1400. June—July. P.

Woods and hedges. Frequent.

The yellow Avens, though rare in Scotland, is so frequent in rural places in England as to have obtained many familiar names. It is called herb Bennet, star of the earth, goldy flower, and its oldest name was blessed herb. It probably received this because it was once much used by physicians as a febrifuge. Its root is prized on account of its sweet odour, and, in several parts of England, is collected and laid in drawers and chests, to give its scent to linen. It is put into wine or ale, to impart to it a spicy flavour, and a water is distilled from it. It is remarkable, that when this flower grows in damp places, the root does not possess this peculiar aroma.—*Wild Flowers*. 110. Sheep and goats eat it; cows, horses, and swine are not fond of it.—*Linn.*

2. **G. RIVALE. L. Water Avens. E. B. 106. May—June. P.**

Moist situations in woods and thickets, especially on the banks of rivers. Banks of the Irwell near Clifton Aqueduct. Lower end of Mere Clough. Near the railway, about half a mile beyond Agecroft Hall. In the Big Wood, near the canal, about a mile and a half beyond Staly Bridge. In a wood on the left bank of the Medlock, about a quarter of a mile above Clayton Bridge. At Irlam. Beside the Middlebrook, near Dean Church.

## CLASS. POLYANDRIA.

### ORDER. MONOGYNIA.

### PAPAYER. LINN. N. O. PAPAVERACEÆ.

1. **P. ARGEMONE. L. Long Rough-headed Poppy. E. B. 643.**  
 June—July. A.

Corn fields. Frequent. In the neighbourhood of Withington and Chorlton, frequent. Common about Bowdon.

2. **P. RHÆAS. L. Common Red Poppy. Corn Rose. E. B.**  
 645. June—July. A.

Corn fields and waste places, about Bowdon and Stretford. Very rare.

3. **P. DUBIUM. L. Long Smooth-headed Poppy. E. B. 644.**  
 June—July. A.

Corn fields. Very common.

4. *P. SOMNIFERUM*. L. White Poppy. E. B. 2145. July. A.

Waste ground and plantations. Occasionally. On a piece of waste ground near the Mersey, about half a mile below Northen, rather plentiful during the year 1848.

CHELIDONIUM. LINN. N. O. PAPAVERACEÆ.

1. *C. MAJUS*. L. Common Celandine. E. B. 1531. May—July. P.

Hedges and waste places. Frequent. Near Altrincham, Bowdon, and Dunham, common. Ditch bank of a field on the right hand side of a lane leading from Irlams-oth'-height to Agecroft.

The juice of every part of this plant is yellow, and very acrimonious. It cures tetters and ringworms. Diluted with milk, it cures white opaque spots upon the eyes. It destroys warts, and cures the itch. The root is extremely bitter, and greatly esteemed among the natives of Cochin-China, for a variety of uses in medicine.—*Ency. Plants.* 460.

TILIA. LINN. N. O. TILIACEÆ.

1. *T. EUROPÆA*. L. Common Smooth Lime-tree. Linden-tree. E. B. 610. July. T.

Hedges and plantations. Common ; but not indigenous.

The wood is soft, light, and smooth ; close grained, and not subject to the worm. It makes good charcoal for gunpowder, and for designers. It is used for leather-cutters' boards, and for carved work. The leaves are dried in some countries, as winter food for sheep and goats. The bark, macerated in water, may be made into ropes and fishing nets. Cows eat them in the autumn ; they give a bad taste to the milk. The flowers are fragrant, and afford the best honey for bees. The sap, inspissated, affords a quantity of sugar. W. 649.

2. *T. GRANDIFOLIA*. EHRH. Broad-leaved Downy Lime-tree. E. B. 2720. July. T.

Near Prestwich.

NYMPHÆA. LINN. N. O. NYMPHÆACEÆ.

1. *N. ALBA*. L. Great White Water-lily. E. B. 160. June—August. P.

Pits and ponds in many places around Manchester. Common. In the neighbourhood of Chorlton, Withington, Stretford, and Eccles. Baguley Moor. Rosthern Mere.

The species are beautiful aquatics, especially *N. alba*, which has a large flower filled with petals, so as to appear double. It raises itself out of the water, and expands about seven o'clock in the morning, and closes again, reposing upon the surface, about four in the afternoon. The roots have a bitter taste. They are used in Ireland, in the Highlands of Scotland, in the Island of Jura, &c., to dye a dark brown or chestnut

colour. Swine are said to eat it, goats not to be fond of it, cows and horses to refuse it. The flowers, the herb, and the root, were formerly used in medicine, but are now obsolete.—*Ency. Plants.* 464.

“ Oh! come to the river’s brink, come to us there;  
For the white Water Lily is wondrous fair,  
With her large broad leaves on the stream afloat,  
Each one a capacious fairy boat.  
The swan among flowers, how stately ride  
Her snow white cups on the rippling tide.”

## NUPHAR. LINN. N. O. NYMPHÆACEÆ.

1. N. LUTEA. SM. NYMPHÆA LUTEA. L. Common Yellow Water-lily. E. B. 159. July. P.

Pits and ponds. Frequent. Rosthern and Mere Meres. Baguley Moor. Pond at Broughton Priory. Ponds near Prestwich and Pilkington. Several places in the neighbourhood of Leigh and Tyldesley.

## ORDER. PENTAGYNIA.

## AQUILEGIA. LINN. N. O. RANUNCULACEÆ.

1. A. VULGARIS. L. Common Columbine. E. B. 297. June. P.

Woods and hedges. Rare. Cotterill Wood, sparingly. Thicket near the banks of the Bollin, below Cotterill Wood. Hedges in the fields between Marple Wood and the river Goyt, plentiful.

*A. vulgaris* is an old inhabitant of the flower border. The whole plant has been recommended to be used medicinally, but it belongs to a suspicious natural order, and Linnaeus affirms, that children have lost their lives by it.—*Ency. Plants.* 476.

## STRATIOTES. LINN. N. O. HYDROCHARIDEÆ.

1. S. ALOIDES. L. Water Aloe. Water Soldier. E. B. 379. June—July. P.

Ponds and ditches. Pit about a quarter of a mile south-west of the new church, near Cheetham Hill. Pit about two fields distance from the Chester road, on the right hand side, about a mile from Altrincham. Pit about fifty yards to the left of a footpath leading out of Gilda-brook lane to Swinton, and other places in the neighbourhood of Eccles. Several places in the neighbourhood of Tyldesley and Leigh. In an old pit nearly half a mile north of Belle Vue, Gorton, plentiful. Pits at Bramhall, near Stockport.

*Stratiotes*, from a camp; in English, water-soldier; both names alluding to the military appearance of the plant, with its long, sword-like leaves, and flowers which may be likened to plumes of white feathers. An aquatic plant, remaining the greatest part of the year immersed in water, but rising to flower. It increases with such rapidity as to become a troublesome weed in artificial pieces of water in which it has been planted.—*Ency. Plants.* 843.

## ORDER. POLYGYNIA.

## ANEMONE. LINN. N. O. RANUNCULACEÆ.

1. A. NEMOROSA. L. Wood Anemone. Wind-flower. E. B. 355. April—May. P.

Meadows, hedges, and thickets. Abundant. I have seen a variety of a beautiful sky blue colour, growing in Mere Clough.

The flowers fold up in a curious manner against rain. The whole plant is acrid. When sheep are unaccustomed to eat it, it brings on a bloody flux. Goats and sheep eat it; horses, cows, and swine, refuse it.—*Linn.* The recent flowers are poisonous, and the plant yields an acrid, volatile principle, so corrosive as sometimes to be used externally, instead of Cantharides. W. 661.

## ADONIS. LINN. N. O. RANUNCULACEÆ.

1. A. AUTUMNALIS. L. Corn Pheasant's Eye. Adonis-flower. E. B. 308. July. A.

Corn fields. Very rare. Near Hyde (Mr. J. Sidebotham).

*Adonis*, the plant which is said to have sprang from the blood of Adonis, when wounded by the boar. Handsome border flowers, especially *A. vernalis* and *autumnalis*, and of the easiest culture in any common soil.—*Ency. Plants.* 484.

## RANUNCULUS. LINN. N. O. RANUNCULACEÆ.

1. R. AQUATILIS. L. Various-leaved Water Crowfoot. E. B. 101. May—June. P.

Ponds and ditches, on the south and south-east of Manchester, about Chorlton, Withington, Stretford, Sale, and other places.

Dr. Pulteney, in the fifth volume of the *Linnean Transactions*, in support of its innoxious qualities, has adduced the fact of horses, cows, and pigs eating it with avidity, and of being almost alone supported by it, and being kept in good condition.

var. *β. pantothrix.* BAB.

Various places about Sale, Baguley, and Ringway.

2. R. HEDERACEUS. L. Ivy Crowfoot. E. B. 2003. Spring and Summer months. P.

Ponds and wet ditches. Common.

3. R. FLAMMULA. L. Lesser Spear-wort Crowfoot. E. B. 387. June—August. P.

Sides of ponds and ditches. Very common.

4. R. LINGUA. L. Great Spear-wort Crowfoot. E. B. 100.  
July—August. P.

Seaman's Moss-pits, near Altrincham. Knutsford Moor. Lime-pits, Bedford. In the neighbourhood of Culcheth, near Leigh.

5. R. FICARIA. L. Pile-wort Crowfoot. Lesser Celandine.  
E. B. 584. April—May. P.

Wet meadows, pastures, and woods. Abundant.

*Ficaria*, so named because the grumous roots bear tubercles like little figs. A common wood plant, remarkable for its shining leaves and bright yellow flowers. The young leaves are sometimes used as greens in Sweden, and the roots were formerly applied as poultices to piles in England, probably from their resemblance to that disease. These roots, or tubercles, lie near the surface, and are sometimes laid bare by the rains, and in this state have induced the ignorant, under the influence of superstition, to fancy that it rained wheat. The plant is injurious in moist grass lands, but is effectually destroyed by a dressing of coal or wood ashes.—*Ency. Plants*. 485. Goats and sheep eat it; cows and horses refuse it. W. 667.

6. R. AURICOMUS. L. Sweet Wood Crowfoot. E. B. 624.  
May. P.

Woods and thickets in the neighbourhood of Cotterill Wood. Thicket behind Agecroft Hall. Woods in Reddish Vale.

7. R. ACRIS. L. Upright Meadow Crowfoot. E. B. 652. Summer months. P.

Meadows and pastures. Everywhere abundant.

Sheep and goats eat it; cows, horses, and swine, refuse it.—*Linn.* Cows and horses leave this plant untouched, though their pasture be ever so bare. It is very acrid, and easily blisters the skin. W. 670.

8. R. REPENS. L. Creeping Crowfoot. E. B. 516. June—August. P.

Hedges and pastures. Very common.

9. R. BULBOSUS. L. Bulbous-rooted Crowfoot. E. B. 515.  
May. P.

Meadows and pastures. Common and abundant.

10. R. HIRSUTUS. CURT. Pale Hairy Crowfoot. E. B. 1504.  
June—October. A.

Culcheth and Bedford, near Leigh, occasionally.

11. R. SCELERATUS. L. Celery-leaved Crow-foot. E. B. 681.  
A.

Sides of pits and ditches near New Hall Green and Ringway. Several places near Stretford. Side of a ditch on New Hall Farm, near Broughton suspension bridge. Near the Manchester water works. By the side of the new road leading from Strangeways to Cheetham-Hill.

Dr. Christian observes, "*R. sceleratus* is well named; and nothing can surpass the instant and intense pungency of its green and unripe germens. I have found in them

a crystalline principle, which volatilizes during trituration at the temperature of 60°, occasioning pungent smarting of the nostrils and eyes, with copious secretion of tears and mucus." Krapf, as quoted by the same author, considers it to be endowed with great energy as a poison, insomuch, that half an ounce of the juice of the plant will kill a dog.

12. *R. ARVENSIS*. L. Corn Crowfoot. E. B. 135. June. A.

Cornfields. Occasionally. Near Chorlton, Withington, Marple, and Eccles.

TROLLIUS. LINN. N. O. RANUNCULACEÆ.

1. *T. EUROPÆUS*. L. Globe-flower. Globe Ranunculus. E. B. 506. June—July. P.

Moist woods and pastures, in mountainous or sub-mountainous districts. Pilsworth, near Bury, plentiful. Big Wood, near Staly Bridge. Moist thicket, between Mosley and Greenfield. Several places about Bolton. Moist dingle at Thornham.

CALTHA. LINN. N. O. RANUNCULACEÆ.

1. *C. PALUSTRIS*. L. Marsh Marigold. Meadow-bolt. E. B. 506. April—June. P.

Marshy places. Common.

CLASS. DIDYNAMIA.

ORDER. GYMNOSPERMIA.

MENTHA. LINN. N. O. LABIATÆ.

1. *M. ROTUNDIFOLIA*. L. Round-leaved Mint. E. B. 446. July—August. P.

Greenfield.

2. *M. PIPERITA*. L. Pepper-Mint. E. B. 687. August. P.

Right bank of the Medlock, near Hulmes' print works, Clayton Vale. Ditch on the left side of the highway from Rosthern to Bucklow Hill. In the lane leading to Reddish Mill.

The stem and leaves are beset with numbers of very minute glands, containing the essential oil, which rises plentifully in distillation. Peppermint water is well known as a carminative, and anti-spasmodic. The essence of peppermint is an elegant medicine, and possesses the most active properties of the plant. W. 692.

3. *M. AQUATICA*. L. *M. HIRSUTA*. SM. HOOK. Hairy Mint. Capitate Mint. E. B. 447. July—September.

Wet, boggy situations; bottoms of ditches, and margins of rivers. Common and plentiful.

A species liable to great variation.

4. *M. SATIVA*. L. var. *γ. gentilis*. *M. GENTILIS*. SM. HOOK.  
Bushy Red Mint. E. B. 2118. August. P.

Right bank of the Mersey, near Carrington Ferry, plentiful.

This species or variety is distinguished from its allies by the circumstance of the peduncle and base of the calyx being glabrous, or nearly so.

5. *M. ARVENSIS*. L. Corn Mint. E. B. 2119. August—  
September. P.

Corn fields and waste places. Abundant.

var. *β. agrestis*. *M. AGRESTIS*. SM. HOOK.

At Hough End.

### CALAMINTHA. MOENCH. N. O. LABIATÆ.

1. *C. ACINOS*. CLAIRV. *THYMUS ACINOS*. L. SM. *ACINOS VULGARIS*. HOOK. Basil Thyme. E. B. 411. July—August. A.

Cultivated fields and road-sides, at Bowdon, frequent.

2. *C. CLINPODIUM*. SPENN. *CLINPODIUM VULGARE*. L. SM. HOOK. Common Wild Basil. E. B. 1401. August. P.

Hedge banks, and dry, shady places. Rare. Right bank of the Mersey, about two hundred yards above Cheadle Bridge, rather sparingly. Hedge bank in a field on the left bank of the same river, opposite to the preceding situation. Sloping bank of a brook near Cheadle Church. Hedge bank in a field about a quarter of a mile from the right side of the high-way at the Mersey Bridge, beyond Stretford.

### PRUNELLA. LINN. N. O. LABIATÆ.

1. *P. VULGARIS*. L. Self-heal. Slough-heal. Carpenters' Wound-wort. E. B. 961. July—August. P.

Moist meadows and pastures. Plentiful.

Two varieties, one with white and the other with flesh-coloured flowers, are frequently met with.

### SCUTELLARIA. LINN. N. O. LABIATÆ.

1. *S. GALERICULATA*. L. Common Skull-cap. E. B. 523. July—August. P.

Wet, boggy situations; boggy margins of ponds, and pitsteads. Not unfrequent. Near Withington, Chorlton, Sale, Timperley, and Altrincham.

2. *S. MINOR*. L. Lesser Skull-cap. E. B. 524. July—August. P.

Rare. Greenfield. Lindow Common, near Wilmalow.

## TEUCRIUM. LINN. N. O. LABIATÆ.

1. *T. SCORODONIA*. L. Wood Germander. Wood Sage. E. B. 1543. July—August. P.

Dry hedge banks. Very common and plentiful.

*T. scorodonia* (garlic, the smell of which this plant possesses) in Jersey is used as a substitute for hops, and the beer is said sooner to become clear than when hops are made use of. Withering found on trial that it gave too much colour to the liquor.—*Ency. Plants.* 495.

## AJUGA. LINN. N. O. LABIATÆ.

1. *A. REPTANS*. L. Common Bugle. E. B. 489. May—June. P.

Moist woods, ditch banks, meadows, and pastures. Very common.

## BALLOTA. LINN. N. O. LABIATÆ.

1. *B. FÆTIDA*. LAM. *B. NIGRA*. SM. HOOK. Black Horehound. E. B. 46. July—August. P.

Waste places near Bowdon. Lane below Bowdon Church, and fields in its vicinity. Near Stand, Pilkington.

## LAMIUM. LINN. N. O. LABIATÆ.

1. *L. AMPLEXICAULE*. L. Great Hen-bit. Hen-bit Dead-nettle. E. B. 770. July—August. A.

Cultivated fields at Bowdon.

2. *L. PURPUREUM*. L. Red Dead-nettle, or Archangel. E. B. 769. May—October. A.

Borders of cultivated fields and hedge banks. Common.

3. *L. INCISUM*. WILLD. Cut-leaved Dead-nettle, or Archangel. E. B. 1933. May—June. A.

Cultivated fields and waste places in Withington, Chorlton, Stretford, Altrincham and Bowdon. Shackerley, near Leigh. Hedge bank near Chaddock Hall, Tyldesley.

4. *L. ALBUM*. L. White Dead-nettle, or Archangel. E. B. 768. Summer months. P.

Weaste lane, near Eccles. Ditch bank opposite a farm-house, near Longford Bridge, Stretford. Chaddock lane, Tyldesley. Near a farm-house, about quarter of a mile south-east of Chorlton. Lane leading from Didsbury Church to the river Mersey, on both sides, plentiful.



5. *L. GALEOBDOLON*. CRANTZ. *GALEOPSIS GALEOBDOLON*.  
*L. GALEOBDOLON LUTEUM*. SM. HOOK. Yellow Weasel-  
 snout, or Archangel. E. B. 787. May—June. P.

Banks of the Irwell, near Clifton Aqueduct; also near Ringley Bridge. Red-brows Wood. Cotterill Wood. Woods in Marple and Reddish Vales.

### GALEOPSIS. LINN. N. O. LABIATÆ.

1. *G. TETRAHIT*. L. Common Hemp-nettle. E. B. 207. July—August. A.

Cultivated fields and waste ground. Very common.

2. *G. VERSICOLOR*. CART. Large-flowered Hemp-nettle. Bee-nettle. E. B. 667. July—August. A.

Cultivated fields and waste ground, on the south and south-west sides of Manchester, frequent.

### STACHYS. LINN. N. O. LABIATÆ.

1. *S. BETONICA*. BENTH. *BETONICA OFFICINALIS*. L. SM.  
 HOOK. Wood Betony. E. B. 1142. July—August. P.

Dry woods and hedges. Common.

*B. officinalis* was formerly much used in medicine, but it is discarded from modern practice. When fresh, it intoxicates. The leaves, when dry, excite sneezing. Sheep eat it; but goats refuse it. The roots are bitter, and very nauseous; in a small dose they vomit and purge violently. This plant dyes wool a very fine dark yellow colour.—*Ency. Plants*. 503.

2. *S. SYLVATICA*. L. Hedge Wound-wort. Stinking Hedge-nettle. E. B. 416. July—August. P.

Woods and hedges. Very common.

3. *S. PALUSTRIS*. L. Marsh Wound-wort. E. B. 1675. July—August. P.

Sides of ditches, and moist corn fields. Common.

var. *β. ambigua*. *S. AMBIGUA*. SM. HOOK. Ambiguous Wound-wort.

Upper part of Mere Clough, plentiful.

4. *S. ARVENSIS*. L. Corn Wound-wort. E. B. 1154. July—August. A.

Shackerley, Atherton, and other places in the neighbourhood of Leigh. Bowdon and Altrincham, plentiful. Near Hough End.

## NEPETA. LINN. N. O. LABIATÆ.

1. *N. GLECHOMA*. BENTH. *GLECHOMA HEDERACEA*. L. SM. HOOK. Common Ground-Ivy. Gill. Ale-hoof. Robin-run-ith'-hedge. E. B. 853. April—May. P.

Woods, hedges, and waste places. Common.

The leaves of *G. hederacea* are often deformed with red, hairy tumours, which are the galls of the *Cynips Glechomæ*. Before the use of hops, the leaves were put into ale, and being bitter, aromatic, and having a peculiar very strong smell, were much used in popular medicine. It is now, however, seldom used.—*Ency. Plants*. 502.

## ORDER. ANGIOSPERMIA.

## EUPHRASIA. LINN. N. O. SCROPHULARINÆ.

1. *E. OFFICINALIS*. L. Common Eye-bright. E. B. 1416. July—August. A.

Pastures. Common.

It is a weak astringent, and was formerly in repute as a remedy for impaired vision. It will not flourish but when surrounded by plants taller than itself. Cows, horses, goats, and sheep, eat it; swine refuse it. W. 721.

2. *E. ODONTITES*. L. *BARTSIA ODONTITES*. Red Bartsia, or Eye-bright. E. B. 1415. July—August. A.

Cultivated fields and waste places. Common.

## RHINANTHUS. LINN. N. O. SCROPHULARINÆ.

1. *R. CRISTA-GALLI*. L. Common Yellow Rattle. E. B. 657. June. A.

Meadows and pastures. Very plentiful.

2. *R. MAJOR*. SM. HOOK. Large Bushy Yellow Rattle. E. B. S. 2737. July. A.

I found this during the year 1848 growing in a corn field about a quarter of a mile from Northen.

## MELAMPYRUM. LINN. N. O. SCROPHULARINÆ.

1. *M. PRATENSE*. L. Common Yellow Cow Wheat. E. B. 113. July—August. A.

Woods, groves, and thickets, common; never in meadows. Mere Clough. Boggart-hole Clough. Wood at Crumpsall. Woods in Reddish Vale. Woods near Marple. Shackerley, near Leigh.

Where this plant abounds, the butter is yellow, and uncommonly good. Swine are very fond of the seeds; sheep and goats eat it; cows are very fond of it; horses refuse it. W. 724.

## LATHRÆA. LINN. N. O. OROBANCHEÆ.

1. *L. squamaria*. L. Greater, or Scaly Tooth-wort. E. B. 50.  
April—May. P.

Woods, hedges, and plantations; especially on the banks of rivers. Parasitic on the roots of Hazels, Elms, Poplars, Alders, White-thorns, and many other trees. Marple Wood. Right bank of the Mersey, nearly opposite Northen Mill. Right bank of the same river, near the Red-brows, a mile and a quarter below the preceding station. Right bank of the Irwell, nearly opposite Trafford Hall, on the roots of the Poplar and White-thorn. On the bank of a brook, near Fox-hill, Barton.

## PEDICULARIS. LINN. N. O. SCROPHULARINEÆ.

1. *P. palustris*. L. Marsh Louse-wort. Tall Red Rattle. E. B. 399. August. A. or P.

Wet, marshy places. Rather local. Dean-church Clough. Rosethorn Mere. Hale Moss, plentiful. Sailor's Shore, between Pilkington and Radcliffe. A mile and a half above Bamford Wood, near the Dean rivulet. Old pits in the neighbourhood of the Manchester Water-works.

2. *P. sylvatica*. L. Pasture Louse-wort. Dwarf Red Rattle. E. B. 400. June—September. P.

Moist pastures and heaths. Common.

## LINARIA. MILL. N. O. SCROPHULARINEÆ.

1. *L. cymbalaria*. MILL. *ANTIRRHINUM CYMBALARIA*. L. SM. Ivy-leaved Snapdragon, or Toad-flax. E. B. 502. June—October. P.

Walls at Hough End Hall. On an old wall in a lane leading from near the Heaton Norris railway station towards Bank Hall.

2. *L. vulgaris*. MILL. *ANTIRRHINUM LINARIA*. L. SM. Common Yellow Toad-flax. E. B. 658. July—August. P.

Frequent in hedges about Altrincham, Bowdon, and Dunham. Near Fitzgerald's Coal-pits, Pendleton. Common about Wilmslow.

## SCROPHULARIA. LINN. N. O. SCROPHULARINEÆ.

1. *S. nodosa*. L. Knotty-rooted Fig-wort. Stinking Roger. E. B. 1544. July—August. P.

Woods and moist hedge banks. Common.

*S. nodosa* has the name of fig-wort, from its knobbed roots. It has a rank smell, like elder, and a bitter taste. Swine that have the scab are cured by washing with a decoction of the leaves. Wasps resort greatly to the flowers. Goats eat the plant; but horses, cows, sheep, and swine, refuse it.—*Ency. Plants*. 531.

2. *S. AQUATICA*. L. Water Fig-wort. Water Betony. E. B. 854. July—August. P.

Sides of brooks, rivers, and wet ditches. Chorlton and Withington. Hale Moss, and its vicinity. About Baguley, Timperley, Irlam, Barton, and Reddish Vale. Many other places.

### DIGITALIS. LINN. N. O. SCROPHULARINEÆ.

1. *D. PURPUREA*. L. Purple Foxglove. E. B. 1297. June—July. B.

Woods and hedge banks, especially in a dry boggy soil. Common.

In large doses, it is a narcotic-irritant poison. In medial doses, frequently repeated, it is a sedative of the circulation, and a diuretic, on which latter account it is extensively employed in dropsies of all kinds. Owing to the property which this plant pre-eminently possesses of accumulating in the system, so that repeated small doses, after a time, act with sudden and fatal energy, great caution should be exercised in its administration. Indeed, its use ought to be confined to professional men, not merely as being the only competent judges of its application to any particular disease, but as being best able to meet those dangerous symptoms which sometimes arise, even under its most careful use.

### LIMOSELLA. LINN. N. O. SCROPHULARINEÆ.

1. *L. AQUATICA*. L. Common Mud-wort. E. B. 357. July—August. A.

Various places on the borders of Mere Mere.

### OROBANCHE. LINN. N. O. OROBANCHEÆ.

1. *O. MAJOR*. Greater Broom-rape. E. B. 421. June. P.

Formerly found on the roots of Broom, near Eccles (Mr. J. Martin), and at the Hollins, Middle Hulton (Mr. W. Evans). Formerly also on the roots of Broom, near Staly Bridge, in considerable plenty (Mr. J. Tinker).

*O. Major* adheres to the root of broom, furze, and clover, and is particularly destructive to the latter, especially in Flanders, where in some places it deters the farmer altogether from the culture of clover. It has a large, thick, fleshy, oval, scaly root, sometimes bulbous, and sending out fibres, which are very brittle. The bulb adheres to the woody roots of furze or broom, and the fleshy root of clover, and the fibres clasp round them.—*Ency. Plants*. 524.

In the fourth vol. of *Linn. Trans.* is a paper by the Rev. Charles Sutton, B.D., A.L.S., by which it appears that this class of plants is not entirely parasitic, but that they acquire no small portion of sustenance from the soil, by means of radical fibres. These plants have an acrid, astringent taste; and are rejected by all kinds of animals except the minuter *Cimices* and *Thripsæ*. They are *acotyledons*, for, when a seed has attached itself to the root of a living plant, it swells into a pellucid squamose gem or bulb; and, after throwing out around the point of adhesion several tender fibres, it pushes up at once into a perfect plant, without any lateral lobes or cotyledons, the capitulum resembling a young head of asparagus. W.

## CLASS. TETRADYNAMIA.

## ORDER. SILICULOSA.

## CAPSELLA. D. C. N. O. CRUCIFERÆ.

1. C. BURSA-PASTORIS. D. C. THLASPI BURSA-PASTORIS. L. SM. Common Shepherd's Purse. E. B. 1485. April—September. A.

Cultivated fields and waste places. Everywhere.

A very variable plant.

## TEESDALIA. R. BR. N. O. CRUCIFERÆ.

1. T. NUDICAULIS. R. BR. IBERIS NUDICAULIS. L. Naked-stalked Candy Tuft. Rock Cress. E. B. 327. May—June. A.  
Sandy and gravelly places. Not unfrequent. Timperley, near Altrincham. Lane between Altrincham and Hale Barn. About Bowdon, frequent. Between Bucklow Hill and Knutsford. Near Prestwich.

## LEPIDIUM. LINN. N. O. CRUCIFERÆ.

1. L. CAMPESTRE. R. BR. THLASPI CAMPESTRE. L. Greater Mithridate Mustard. Pepper-wort. E. B. 1385. June—July. A.  
Cultivated fields. Plentiful.
2. L. SMITHII. HOOK. LEPIDIUM HIRTUM. SM. THLASPI HIRTUM. L. Hairy Mithridate Mustard. Pepper-wort. E. B. 1803. June—July. P.

Hedge bank beside the Duke of Bridgewater's canal, between Broad-heath Bridge and Seaman's Moss Bridge. Near Sale.

## ARMORACIA. FL. WETT. N. O. CRUCIFERÆ.

1. A. RUSTICANA. FL. WETT. COCHLEARIA ARMORACIA. L. SM. HOOK. Horse-radish. E. B. 2323. May—June. P.

Near the river Irwell, on the Flixton side, at Irlam Boat. Right bank of the Mersey, about a mile and a half above its junction with the Irwell.

The root, scraped, is in common use at our table as a condiment for fish, roast beef, &c., and it is used for many other culinary purposes. An infusion of it, in cold milk, makes one of the safest and best cosmetics. In paralytic and dropsical cases it is a useful stimulant and diuretic. A strong infusion of it excites vomiting. A distilled water is prepared from it. Horses, cows, goats, sheep, and swine, refuse it. W. 762.

## DRABA. LINN. • N. O. CRUCIFERÆ.

1. D. VERNÆ. L. Common Whitlow-grass. E. B. 586. April.  
A.

Hedge banks and clover fields. About Withington, Chorlton, Sale, Timperley, Altrincham, and Bowdon. Various places near Leigh.

## CAMELINA. CRANTZ. N. O. CRUCIFERÆ.

1. C. SATIVA. CRANTZ. MYAGRUM SATIVUM. L. Common  
Gold of Pleasure. E. B. 1254. June. A.

Occasionally in cultivated fields, but very rare (Mr. Horsefield).

## ORDER. SILIQUOSA.

## CARDAMINE. LINN. N. O. CRUCIFERÆ.

1. C. PRATENSIS. L. Meadow Ladies'-smock. Cuckoo-flower.  
May-flower. E. B. 776. May. P.

Moist meadows. Abundant.

This species is sometimes found with double flowers.

Mr. Bamford, in his description of the dell below Tandle Hill, in the month of May, has written the following lines :—

“ And the Lady-flower waves on its slender stem,  
And the primrose peeps like a starry gem ;  
Whilst down in the dell doth the rindle spring,  
Glimmering dimly and murmuring,  
Where pebbles are dark and waters clear,  
As a sloe black eye and a pearly tear ;  
And the wood-bine is hung over that pale gleam,  
And the green moss is creeping towards the stream,  
And the tall oaks are up at the light of day,  
And waving aloft where the winds do play.”

2. C. HIRSUTA. L. Hairy Ladies'-smock, or Cress. E. B. 492.  
March—June. A.

Hedge banks and cultivated fields. Abundant.

This herb is regularly brought into the Manchester market during winter and spring, and sold as a salad, under the name of black or stone cress.

3. C. SYLVATICA. LINK. Great Hairy Cress. E. B. 0. April  
—July. A.

Woods and shady places. Common.

Though given as a species, on the above authority, and adopted by Mr. Babington, I am of opinion that it is only a luxuriant variety of the preceding species.

4. C. AMARA. L. Bitter Ladies'-smock. E. B. 1000. May—June. P.

Marshy woods and thickets. Common. Cotterill Wood, plentiful. Reddish Wood. Red-brow Wood. Bent-bog, near Kersal Moor. Wood in Clayton Vale. Many other places.

Sheep eat it; cows are not fond of it.—*Linn.* The young leaves are acrid and bitterish, but do not taste amiss in salads.—*Lightfoot.* They are much used for that purpose in Lancashire.—*Mr. Caley.* The leaves are pungent, bitter, and aromatic, in such a degree as to promise very considerable medical uses. W. 768.

### BARBAREA. R. BR. N. O. CRUCIFERÆ.

1. B. VULGARIS. R. BR. ERYSIMUM BARBAREA. L. Bitter Winter Cress. Yellow Rocket. E. B. 443. May—August. P.

Pastures, hedges, and banks of rivers. Frequent.

#### var. *β. intermedia.* BUXTON.

Cultivated fields. Chorlton, Withington, Baguley, Timperley, and Altrincham.

With short, nearly adpressed pods, about an inch in length, in which it best agrees with *vulgaris*; but in its upper deeply pinnatifid leaves, its more slender habit, and early time of flowering, which is from April to May, it approaches nearer to *præcox*.

2. B. PRÆCOX. R. BR. ERYSIMUM BARBAREA, var. *β.* L. Early Winter Cress. E. B. 1129. April—July. P.

Cultivated fields in Chorlton and Withington; doubtfully wild.

The common people in Sweden use the leaves in salads, early in the spring, and late in the autumn; they also boil them as Calt. It is sown in gardens as an early spring salad.—*Linn.* And also in England, where it is called French, or American, cress. Cows eat it; horses and swine refuse it; goats and sheep are not fond of it. W. 774.

### NASTURTIIUM. R. BR. N. O. CRUCIFERÆ.

1. N. OFFICINALE. R. BR. SISYMBRIUM NASTURTIIUM. L. Water Cress. E. B. 855. July. P.

Running and stagnant water. Frequent.

This is very universally used as an early and wholesome spring salad. It is an excellent anti-scorbutic and stomachic, with less acrimony than the scurvy-grass. It is an ingredient in the anti-scorbutic juices. W. 769.

2. N. TERRESTRE. R. BR. Annual Yellow Cress. E. B. 1747. June—September. P.

Margins of brooks, ponds, and ditches. Common.

3. N. AMPHIBIUM. R. BR. SISYMBRIUM AMPHIBIUM. L. Amphibious Yellow Cress. Great Water Radish. E. B. 1840. June—August. P.

Ponds behind the Bull and Punch-bowl, Stretford road. Pits near a brick-ground on the right-hand side of the Stretford road, nearer to Stretford than the preceding station. Ditches near the railway, between Old Trafford and Stretford.

The ends of the general fruit stalks are often swollen into a cauliflower-like substance, purplish, and containing small grubs of the same colour. Cows refuse it; sheep and goats are not fond of it. W. 770.

## SISYMBRIUM. LINN. N. O. CRUCIFERÆ.

1. S. OFFICINALE. SCOP. ERYSIMUM OFFICINALE. L. Common Hedge Mustard. E. B. 735. June—July. A.

Way sides and hedge banks. Abundant.

It is warm and acrid to the taste, and, when cultivated, is used as a spring pot-herb. Birds are fond of the seeds. Sheep and goats eat it; cows, horses, and swine, refuse it. By means of this herb a hoarseness, occasioned by loud speaking, was cured in three days, by Rondeletius.—*Lin.* "Juice of Hedge Mustard is beyond anything in ulcers of the throat. This was found by experience by the Honourable Henry Grey, when all advice of doctors and surgeons availed nothing. This from his own mouth."—Manuscript note in a copy of Parkinson, which formerly belonged to Mr. Saunders, surgeon, at Stourbridge. W. 774.

2. S. THALIANUM. GAUD. ARABIS THALIANA. L. SM. Common Wall-cress. Thale Cress. E. B. 901. April—May. P.

Walls, dry banks, and cultivated fields. Abundant, particularly south and south-west of Manchester.

## ERYSIMUM. LINN. N. O. CRUCIFERÆ.

1. E. CHEIRANTHOIDES. L. Worm-seed. Treacle Mustard. E. B. 942. June—August. A.

Banks and fields near the banks of the Irwell, between Barton and Irlam (Mr. John Shaw).

The country people give the seeds to destroy worms, and with good effect. Cows, horses, goats, and swine, eat it. W. 776.

## ALLIARIA. ADANS. N. O. CRUCIFERÆ.

1. A. OFFICINALIS. ANDRZJ. ERYSIMUM ALLIARIA. L. SM. Garlic. Jack by the hedge. Sauce alone. E. B. 796. May—June. B.

Hedge banks and waste places. Very common.

The Prussians eat the leaves with salted meats in the spring. They are useful with lettuce and colder salads. The seeds excite sneezing. Cows and goats eat it; horses, sheep, and swine, refuse it. When growing in poultry yards, the fowls eat it, and it gives an intolerable rank taste to their flesh. In Wales it is much used as a frying herb. W. 775.

## BRASSICA. LINN. N. O. CRUCIFERÆ.

1. B. CAMPESTRIS. L. Common Wild Navew. E. B. 2234. June—August. A. or B.

Cultivated fields and waste places. Very common.



var.  $\beta$ . *Rapa*. B. RAPA. SM. HOOK. Common Turnip.  
E. B. 2176. June—August. A. or B.

Cultivated fields. Not unfrequent.

The roots are either eaten raw, boiled, or roasted. Pepper is commonly used with them. They relax the bowels, and are supposed to sweeten the blood. They are hurtful to pregnant or hysterical women, and those who are subject to flatulency. The juice, well fermented, affords by distillation an ardent spirit. The rind is acrimonious. If the roots be kept in sand, or in a cellar, during the winter, they send out white shoots and yellowish leaves, which, being rather sweet, and not unpleasant to the palate, are used as salad, when the other esculent plants are not to be had. But the greatest use of turnips is in feeding oxen and sheep in the winter. W. 784.

2. B. NAPUS. L. Rape, or Cole-seed. E. B. 2146. May—June. A. or B.

Cultivated fields. Occasionally, but rare.

The roots of the cultivated variety may be eaten like the turnip, but they have a stronger taste, and its seeds, which are called cole seed, afford a large quantity of expressed oil, called rape oil (particularly serviceable to the wool combers; for this purpose it is extensively cultivated in the Isle of Thanet, and other places). What remains after the expressing of the oil is called oil cake, and is used for a manure. Cows, goats, and swine, eat it. W. 783.

3. B. NIGRA. KOCH. SINAPIS NIGRA. SM. HOOK. Common, or Black Mustard. E. B. 969. June—August. A.

Hedge banks and waste places. Rare. Right bank of the Mersey, near Carrington Bridge. Near Monton Green.

The seeds, reduced to powder, make the common mustard, so much in request at our tables. They yield a considerable quantity of expressed oil, which partakes but little of the acrimony of the plant. The seeds, when unbruised, impart but little taste to boiling water. Taken inwardly, in the quantity of a meat spoonful or more, they gently loosen the bowels, and are of service in asthma, chronic rheumatism, and palsy. The powdered seeds curdle milk, and give a strong impregnation to boiling water. The infusion, taken in considerable quantity, vomits; in smaller doses, it is a useful aperient and diuretic. Cataplasms, formed with crumbs of bread, vinegar, and powdered mustard seed, are very commonly applied to the soles of the feet, as stimulants, in fevers that require such treatment; they are used with advantage, topically applied, in fixed rheumatic and sciatic pains. Upon the whole, wherever we want a strong stimulant, that acts upon the nervous system, without exciting much heat, we know none preferable to mustard seed. Its acrimony consists in an essential oil. W. 787.

## CLASS. MONADELPHIA.

### ORDER. PENTANDRIA.

ERODIUM. L'HERIT. N. O. GERANIACEÆ.

1. E. CICUTARIUM. SM. GERANIUM CICUTARIUM. L. Hemlock Stork's-bill. E. B. 1768. Summer months. A.

Road sides and cultivated fields, Bowdon. Fields near the Irwell at Hollins Ferry, and near Chorlton.

Among the numberless instances of obvious providential design and contrivance in the structure of the seeds and seed vessels of plants, few are, perhaps, more remarkable, or more strikingly display themselves as the workmanship of an intelligent artificer, than that which we meet with in the seeds of *E. Cicutarium*, and some other species of *Geranium*. The seeds of this genus surround the pistil at its base; each seed is covered

with a distinct seedcoat peculiar to itself, which, after having inclosed the seed, runs out in the form of a narrow appendage, or tail, to the extremity of the style, to which it is slightly connected along its whole length, and which has five grooves, or flutes, to receive the five seeds, with their appendages. Each of these appendages has the property of contracting itself into a spiral or screw-like form, when dry; and of again extending itself into a right line, when moist. In short, it is a spiral spring, which lengthens or contracts itself alternately, as often, and in such proportion, as it happens to become wet or dry. The power first exerts itself when the seed with its appendage becomes dry, in consequence of arriving at maturity, when it suddenly separates the seed from its parent plant. The seed, thus disengaged, is either destroyed by the vicissitudes of the seasons, or meets with some crevice in the earth, or some light porous spot, into which it can easily insinuate itself, and from thence, in due time, produce a new plant. W.

2. *E. MOSCHATUM*. SM. *GERANIUM MOSCHATUM*. L. Musky  
Stork's-bill. E. B. 902. June—July. A.

Near the new school, Swinton.

#### ORDER. DECANDRIA.

#### *GERANIUM*. LINN. N. O. *GERANIACEÆ*.

1. *G. PHCEUM*. L. Dusky Crane's-bill. E. B. 322. May—  
June. P.

Near Eccles, but rare (Mr. John Shaw).

2. *G. PRATENSE*. L. Blue Meadow Crane's-bill. E. B. 404.  
June—July. P.

Meadows near the banks of the Irwell and Mersey. Reddish Vale,  
in great abundance. Fields near Cheadle, plentiful.

3. *G. DISSECTUM*. L. Jagged-leaved Crane's-bill. E. B. 753.  
May—June. A.

Road-sides and cultivated fields. Plentiful.

4. *G. COLUMBINUM*. L. Long-stalked Crane's-bill. E. B. 259.  
June.—August. A.

Lane behind Hough End Hall. Hedge bank on the canal side  
between Broad-heath Bridge and Seaman's Moss Bridge. Lane  
near Dog-house Farm, near Hough End Hall. On a hedge bank  
on the right-hand side of the road leading from Chorlton to  
Stretford.

5. *G. MOLLE*. L. Common Dove's-foot Crane's-bill. E. B. 778.  
April—August. A.

Road sides and cultivated fields. Very common.

6. *G. ROBERTIANUM*. L. Stinking Crane's-bill. Herb Robert.  
E. B. 1486. Summer months. A.

Woods, thickets, and shady places. Very common.

## ORDER. POLYANDRIA,

## MALVA. LINN. N. O. MALVACEÆ.

1. *M. SYLVESTRIS*. L. Common Mallow. E. B. 671. May—August. P.

Hedge banks and fields below Bowdon Church. Near Hollins Ferry (Mr. John Martin).

Professor Davy observes that the fibres of all kind of Mallows are particularly beautiful, especially of this species. They are finer than camels' hair, and there is no difficulty in procuring them.—*Month. Mag.* v. 28. W. 808. It has still a place in the *Materia Medica*, on account of its demulcent properties; but it is greatly inferior to *Althæa*, and therefore little used.—*Ency. Plants.* 582.

2. *M. ROTUNDIFOLIA*. L. Dwarf Mallow. E. B. 1092. June—September. A.

Lanes at Bowdon.

3. *M. MOSCHATA*. L. Musk Mallow. E. B. 754. July—August. P.

Meadows and hedge banks near Agecroft. Hedge banks near Barlow Hall. Railway banks between Cheadle and Wilmslow. Near the river at Irlam. Banks of a brook near the Old Hall, Withington. Field near the Black Clough, Kersal Moor.

## CLASS. DIADELPHIA.

## ORDER. HEXANDRIA.

## CORYDALIS. D. C. N. O. FUMARIACEÆ.

1. *C. CLAVICULATA*. D. C. *FUMARIA CLAVICULATA*. L. Sm. White Climbing Fumitory. E. B. 103. June—August. A.

Woods, hedges, and shady places. Under hedges near the Independent College, Chorlton. Hedge banks near Syddall Moor. Hedge banks at Ryecroft, near Ashton-under-Lyne, plentiful. Big Wood, near Staly Hall. Lane leading from Irlams-o'th'-height to Agecroft Farm. Hedges near Tyldesley Moss. Offerton Rough, near Stockport, plentiful.

## FUMARIA. LINN. N. O. FUMARIACEÆ.

1. *F. CAPREOLATA*. L. Ramping Fumitory. E. B. 943. May—September. A.

Cultivated fields and hedges by road sides. Common. Hedges by road sides near Cheetham-Hill. Hedges and cultivated fields about Bowdon. About Wilmslow in similar situations. Chorlton, Withington, and Northen.

2. *F. OFFICINALIS*. L. Common Fumitory. E. B. 589. May—September. A.

Cultivated fields and road sides. About Bowdon and Altrincham, common. Also about Chorlton and Withington.

ORDER. OCTANDRIA.

POLYGALA. LINN. N. O. POLYGALEÆ.

1. *P. VULGARIS*. L. Common Milk-wort. E. B. 76. June—August. P.

Moors, and dry, hilly pastures. Frequent.

Very variable in the colour of its flowers, which are sometimes white, and at others of a beautiful pink colour. The latter are to be found in Reddish and Marple Vales.

Sir J. E. Smith found that an infusion of the herb, taken in a morning, fasting, about a quarter of a pint daily, promoted expectoration, and was good in a catarrhus cough. He tried it at Montpelier, by the advice of Professor Gouan, with success, and has since known it useful. Foreign writers celebrate it as grateful and nutritious food for cattle. According to the Swedish experiments, cows, sheep, and goats, eat it; but swine refuse it.—*Ency. Plants*. 602.

ORDER. DECANDRIA.

ULEX. LINN. N. O. LEGUMINOSÆ.

1. *U. EUROPÆUS*. L. Common Furze, Whin, or Gorse. E. B. 742. March—May. Sh.

Heathy and moory ground, and also by road sides. Very common.

It abounds in some places, and there it is despised by the common people; but the greatest botanists have admired its deep green shoots and leaves, brilliant yellow flowers, and tufted picturesque shape. About St. Petersburg, it forms one of their most valuable greenhouse plants, flowering in winter. Linnæus lamented that he could hardly preserve it alive in a greenhouse. Many parts of Germany are wholly destitute of the furze bush, in so much that Dillenius was in a perfect ecstasy when he first saw our commons covered with its golden flowers.—*Ency. Plants*. 612. The young shoots, after being passed between wooden rollers to bruise them, form a most excellent food for milch cows.

2. *U. NANUS*. FORST. *U. EUROPÆUS*, var.  $\beta$ . L. Dwarf Furze. Autumnal Furze. E. B. 743. August—November. Sh.

Dry heaths and moors, and rough, hilly pastures. Kersal Moor and Lindow Common, abundant.

var.  $\beta$ . *major*. BAB.

Plentiful on Alderley Edge.

## GENISTA. LINN. N. O. LEGUMINOSÆ.

1. G. TINCTORIA. L. Dyer's Green-weed. Wood-waxen. E. B. 44. July—August. Sh.

Thickets, pastures, and borders of fields, in many places. Between Handforth and Styall, Cheshire. Sailors' Shore, between Pilkington and Ratcliffe, plentiful. Near Broughton Church. At Moston. Many places about Tyldesley and Bedford. Many other places.

When cows feed on it, their milk, and the butter or cheese made from it, are said to be very bitter. A bright yellow colour may be prepared from the flowers; and for wool to be dyed green with wood-waxen, the dyers prefer it to all others. A drachm and a half of the powdered seeds operate as a mild purgative. A decoction of the plant is sometimes diuretic, and therefore has proved serviceable in dropsical cases. A salt prepared from the ashes is recommended in the same disorder.—*Ency. Plants.* 611.

2. G. ANGLICA. L. Needle Green-weed, or Whin. Petty Whin. E. B. 132. May—June. Sh.

Heaths and moors. Greenfield. Staly Brushes. Highfield Moss. Hough Hey.

## SAROTHAMNUS. WIMM. N. O. LEGUMINOSÆ.

1. S. SCOPARIUS. WIMM. SPARTIUM SCOPARIUM. L. Sm. CYTISUS SCOPARIUS. HOOK. Broom. E. B. 1339. June. Sh.

Dry hills and thickets. About Ringway, Cheshire, plentiful. Banks of the Manchester and Birmingham railway, between Stockport and Wilmslow, plentiful. Hedges about Sale and Withington, frequent. Sailors' Shore. Several places near Eccles, plentiful.

Bees are fond of the flowers. The flower buds, just before they become yellow, are pickled, in the manner of capers; the branches are said to be capable of tanning leather, and being manufactured into coarse cloth; the twigs, when bruised, smell disagreeably, which perhaps may be one reason why our broom is generally rejected by cattle.—*Curtis.* But they have also a nauseous, bitter taste. The plant, when burnt, affords a tolerably pure alkaline salt. Broom tops are diuretic and cathartic; the seeds are said to be emetic. The effects of this plant have been very long known to the common people; and both Mead and Cullen found them useful in dropsy.—*Ency. Plants.* 611. This humble shrub was the adopted badge of the Plantagenets.

"The storied urn may be crumbled to dust,  
And time may the marbled bust deface;  
But thou wilt be faithful and firm to thy trust,  
The memorial flower of a princely race."

## ONONIS. LINN. N. O. LEGUMINOSÆ.

1. O. ARVENSIS. L. Common Rest-harrow. Cammock. E. B. S. 2659. June—August. P.

Field near Hope square, Prestwich. Several places on and near the banks of the Goyt, in Marple Vale. Fields at Bramhall, near Stockport.

This plant was formerly very troublesome in corn fields, on account of its long, ligneous roots obstructing the progress of the plough, and its branches the harrow; but in all properly cultivated lands the plant has disappeared. It is frequent in aboriginal pastures, on dry soils, and is eaten by cows, sheep, and goats, but not freely by horses.—*Ency. Plants.* 613.

### OROBUS. LINN. N. O. LEGUMINOSÆ.

1. O. TUBEROSUS. L. Common Bitter Vetch. Heath-pea.  
E. B. 1153. May—July. P.

Hedges and thickets. Very common.

*O. tuberosus*, according to Lightfoot, is in great esteem among the Highlanders of Scotland, for the tubercles of the root; they dry and chew them in general, to give a better relish to their liquor; they also affirm them to be good against most disorders of the thorax, and that by the use of them they are enabled to repel hunger and thirst for a long time. They have a sweet taste, something like the roots of liquorice, and, when boiled, are well flavoured and nutritive, and in times of scarcity have served as a substitute for bread.—*Lightfoot*. Boiled well, a fork will pass through them, and dried slightly and roasted, they are served up in Holland and Flanders in the manner of chestnuts, which they resemble in flavour.—*Ency. Plants.* 619.

### LATHYRUS. LINN. N. O. LEGUMINOSÆ.

1. L. PRATENSIS. L. Yellow Meadow Vetchling. E. B. 670.  
June—July. P.

Hedges, meadows, and pastures. Very common.

### VICIA. LINN. N. O. LEGUMINOSÆ.

1. V. HIRSUTA. KOCH. ERVUM HIRSUTUM. L. SM. HOOK.  
Hairy Tare. E. B. 970. June—September. A.

Corn fields and hedges. Very common.

2. V. TETRASPERMA. KOCH. ERVUM TETRASPERMUM. L. SM.  
HOOK. Smooth Tare. E. B. 1223. June—July. A.

Corn fields and waste places. Not very common. About Chorlton, Withington, and Northen.

3. V. SYLVATICA. L. Wood Vetch. E. B. 79. June—July. P.

Cotterill Wood, and upon the woody banks of the Bollin, near Cotterill Wood, plentiful.

*V. sylvatica* and *V. cracca*, where they occur in meadows, are considered valuable herbage plants. They yield great bulk of fodder, which is allowed to be very nutritive. Some have proposed to cultivate them alone, but Curtis observes, they would probably in that case choke themselves for want of support.—*Ency. Plants.* 622. The most elegant of our British climbing plants, and well deserves a place in the garden. Scott thus describes this climber:—

“And where profuse the wood vetch clings  
Round ash and elm in verdant rings,  
Its pale and azure pencilled flower  
Should canopy Titania’s bower!”

4. *V. CRACCA*. L. Tufted Vetch. E. B. 1168. June—August. P.

Meadows, woods, hedges, and thickets. Abundant.

5. *V. SEPIUM*. L. Common Bush Vetch. E. B. 1515. May—July. P.

Woods, hedges, and shady places. Very common.

6. *V. SATIVA*. L. Common Vetch. E. B. 334. June. A.

Cultivated fields about Chorlton, Withington, and many other places.

The above species in its wild state differs from the cultivated *V. Sativa*, similarly to what exists between the wild and cultivated varieties of *Trifolium pratense*.

*V. sativa*, the winter and summer tare, fetch or vetch, is a valuable agricultural plant. Some consider the winter variety as a distinct species; but Professor Martyn proved, by cultivating both, that they were not even very distinct varieties. The winter variety is sown in September and October, and the summer at different periods, from February to June, for successional cuttings. The soil requires to be in a good heart, otherwise they will produce but a poor crop of herbage; on a good soil they will yield ten or twelve tons per acre, which is found excellent for milch cows and working stock. The crop is seldom left to ripen its seeds, but when seeds are wanted; the only use made of them being for sowing, or for feeding pigeons.—*Ency. Plants*. 623.

7. *V. ANGUSTIFOLIA*. SIBTH. *V. SATIVA*, var.  $\beta$ . BAB. Narrow-leaved Crimson Vetch. E. B. S. 2614. June. A.

Hedge banks and dry pastures, in several places. Withington. Hedge bank in a lane between Altrincham and Hale-barns. About Dunham. Hedge bank by the highway between Dunham and Rosthern. Bedford near Leigh.

Probably a mere variety of *V. sativa*.

## ORNITHOPUS. LINN. N. O. LEGUMINOSÆ.

1. *O. PERPUSILLUS*. L. Common Bird's-foot. E. B. 369. June—July. A.

Sandy and gravelly places. Not unfrequent. Near Dunham. Baguley Moor. Kersal Moor, plentiful. Lane near the Old Hall, Withington, and in a field near a small brook about a quarter of a mile west of the Hall. Sandy lane, Pendleton, sparingly.

## ONOBRYCHIS. GAERTN. N. O. LEGUMINOSÆ.

1. *O. SATIVA*. LAM. *HEDYSARUM ONOBRYCHIS*. L. SM. Saintfoin. Cock's-head. E. B. 96. June—July. P.

Cultivated fields. Occasionally, but rare, and introduced with the seeds of other plants. In 1845 it appeared, in some abundance, in a corn field at Broughton.

Its herbage is said to be equally suited for pasturage or for hay, and, eaten green, it is not so apt to swell cattle as the clovers or lucerne. Arthur Young says, that upon soils proper for this grass, no farmer can sow too much of it; and in the *Code of Agriculture* it is said to be "one of the most valuable herbage plants we owe to the bounty of Providence." The usual duration of saintfoin, in a profitable state, is from eight to ten years.

It usually attains its perfect growth in about three years, and begins to decline towards the eighth or tenth on calcareous soils, and about the seventh or eighth on gravels. There are instances, however, of fields of saintfoin, which had been neglected and left to run into pasture, in which plants have been found upwards of fifty years from the time of sowing.—*Ency. Plants.* 622.

## MELILOTUS. LAM. N. O. LEGUMINOSÆ.

1. *M. OFFICINALIS*. LAM. *TRIFOLIUM OFFICINALE*. SM.  
*TRIFOLIUM MELILOTUS-OFFICINALIS*. L. Common Melilot.  
E. B. 1340. June—July. A.

Cultivated fields. Rare. About Withington, Bowdon, and Pilkington.

These plants are similar to the *Lotus*, and are the favourite resort of bees. *M. officinalis* is the chief ingredient in flavouring the Gruyere cheese. This cheese, no doubt, owes its chief excellence to the mixture of herbs in the common pasturage which surrounds the valley of Gruyere, but partly, also, to the flowers and seeds of this plant, which are bruised and mixed with the curd before it is pressed.—*Ency. Plants.* 640.

## TRIFOLIUM. LINN. N. O. LEGUMINOSÆ.

1. *T. PRATENSE*. L. Common Purple Clover. Honeysuckle  
Trefoil. E. B. 1770. Summer months. P.

Meadows and pastures. Abundant.

A variety with white flowers is not unfrequent.

In a great scarcity of provisions, bread has been made of the flowers. The heads are used in Sweden to dye woollen green. With alum they give a light, with copperas a dark green. W. 883.

2. *L. MEDIUM*. L. Zig-zag Trefoil. E. B. 190. June—July.  
P.

Woods, thickets, and hedges. Very common.

3. *T. OCHROLEUCUM*. L. Sulphur-coloured Trefoil. E. B. 1224.  
June—July. P.

Cultivated fields. Very rare. Near Hyde and Chorlton (Mr. J. Sidebotham).

4. *T. ARVENSE*. L. Hare's-foot Trefoil. E. B. 944. Summer  
months. A.

Cultivated fields. Occasionally. Near the Red-brows, Didsbury.  
About Bowdon and Withington.

5. *T. STRIATUM*. L. Soft Knotted Trefoil. E. B. 1843. June  
—July. A.

Woolston, near Warrington (Mr. W. Wilson).

5. *T. REPENS*. L. White Trefoil. Dutch Clover. Shamrock.  
E. B. 1769. Summer months. P.

Meadows and pastures. Everywhere.



7. *T. PROCUMBENS*. L. Hop Trefoil. E. B. 945. Summer months. A.

Dry pastures and cultivated fields. Common.

8. *T. MINUS*. L. *T. FILIFORME*.  $\alpha$ . *major*. HOOK. Lesser Yellow Trefoil. E. B. 1256. June—July. A.

Meadows and pastures. Abundant.

9. *T. FILIFORME*. L. *T. FILIFORME*.  $\beta$ . *microphyllum*. HOOK. Slender Yellow Trefoil. E. B. 1257. June—July. A.

Dry, grassy lanes. Near Bucklow Hill. Lane leading from Ringway Chapel to Cotterill Wood, plentiful.

Many botanists are of opinion that this is only a variety of the preceding species; but this opinion seems to me to have arisen from their having mistaken a dwarf state of *T. minus* for it. To me it appears a perfectly distinct species, and I think it will also appear so to all who have seen the two plants growing near each other.

## LOTUS. LINN. N. O. LEGUMINOSÆ.

1. *L. CORNICULATUS*. L. Common Bird's-foot Trefoil. E. B. 2090. June—August. P.

Meadows and pastures. Very common.

*Lotus major* and *corniculatus* are very suitable to sow with white clover and cow grass, in laying down lands to permanent pasture. Dr. Henderson has written a good deal in their favour; Miller is against them; but Sinclair, in his work on the British grasses, found it a valuable ingredient in meadows, especially where the soil was rather moist.—*Ency. Plants*. 641.

2. *L. TENUIS*. L. Slender Bird's-foot Trefoil. E. B. S. 2615. July—August. P.

Dry pastures and waste places. Baguley Moor. Near Withington, Chorlton, and Altrincham.

Many botanists consider this merely a variety of the preceding species; but it appears to me to be a well marked species.

3. *L. MAJOR*. SCOP. Greater Bird's-foot Trefoil. E. B. 2091: July—August. P.

Sides of ditches, and moist, shady situations. Common.

## MEDICAGO. LINN. N. O. LEGUMINOSÆ.

1. *M. SATIVA*. L. Purple Medick, or Lucerne. E. B. 1749. July—August. P.

Waste places and sides of lanes; probably escaped from cultivation.

Is a deep rooting perennial plant, sending up numerous small and tall clover-like shoots, with blue or violet spikes of flowers. It is highly extolled by the Roman writers; it is also of unknown antiquity in Spain, Italy, and the south of France; is much grown in Persia and Peru, and mown in both countries all the year round. But though it has been so much extolled, it has yet found no great reception in this country. If any good reason can be given for this, it is, that lucerne is a less hardy plant than red clover, requires three or four years before it comes to its full growth, and is for these and other

reasons ill adapted to enter into general rotations; but though it will produce good crops for eight or ten years, yet, from the time the farmer must wait till this crop attains its perfection, and from the care requisite to keep it from grass and weeds, we do not think it is ever likely to come into general culture.—*Ency. Plants.* 646.

2. *M. LUPULINA*. L. Black Medick. None-such. E. B. 971.  
Summer months. A.

Pastures, meadows, and cultivated fields. Abundant.

3. *M. MACULATA*. SIBTH. *M. POLYMORPHA*. L. Spotted Medick. E. B. 1616. June—August. A.

Cultivated fields and waste ground. Very rare. Near Harpurhey.

4. *M. MINIMA*. LAM. *M. POLYMORPHA*, var. *minima*. L. Little Bur Medick. E. B. S. 2635. June—July. A.

A garden weed at Pilkington (Mr. J. Horsefield).

5. *M. DENTICULATA*. WILLD. Reticulated Medick. E. B. S. 2634. April—September. A.

Frequent as a garden weed, and in fields, in Lower Broughton, Prestwich, and Pilkington. On the side of the railway, between Old Trafford and Stretford.

## CLASS. POLYADELPHIA.

### ORDER. POLYANDRIA.

#### HYPERICUM. LINN. N. O. HYPERICINEÆ.

1. *H. ANDROSÆMUM*. L. Tutsan. Park-leaves. E. B. 1225.  
July—August. P.

Near Styall, Cheshire. Bamford Wood, near Heywood. Scout, between Staly Bridge and Mossley.

2. *H. QUADRANGULUM*. L. Square-stalked St. John's-wort. St. Peter's-wort. E. B. 370. July—August. P.

Moist pastures, sides of ditches and rivulets. Frequent. Hale Moss. Sailors' Shore. Ditches about Sale, Timperley, and Baguley. About Tyldesley.

3. *H. PERFORATUM*. L. Common Perforated St. John's-wort. E. B. 295. July—August. P.

Hedges, woods, and thickets. Very common. Rare in the parish of Leigh.

The semi-transparent dots on the leaves are the receptacles of an essential oil. The flowers tinge spirits and oils of a fine purple colour; and the dried plant, boiled with alum, dyes wool of a fine yellow colour. The common people in France and Germany

gather it with great ceremony on St. John's Day, and hang it in their windows, as a charm against storms, thunder, and evil spirits; mistaking the meaning of some medical writers, who have fancifully given this plant the name of *Fuga Daemonum*, from a supposition that it was good in maniacal and hypochondriacal disorders. In Scotland it was formerly carried about as a charm against witchcraft and enchantment.—*Ency. Plants*. 659. Cows, goats, and sheep eat it; horses and swine refuse it.—*Linn.*

4. *H. DUBIUM*. LEERS. *H. MACULATUM*. BAB. LEIGH.  
Imperforate St. John's-wort. E. B. 296. July—August. P.

Hedges and thickets. Not uncommon. Frequent about Stretford, Chorlton, Withington, and Didsbury. Left bank of the Irwell, near Clifton Aqueduct.

5. *H. HUMIFUSUM*. L. Trailing St. John's-wort. E. B. 1226.  
July—August. P.

Sandy and heathy situations, and in cultivated fields. Common.

6. *H. PULCHRUM*. L. Small Upright St. John's-wort. E. B.  
1227. June—July. P.

Dry situations in woods, heaths, and on hedge banks. Common.

7. *H. ELODES*. L. Marsh St. John's-wort. E. B. 109. July—  
August. P.

Boggy situations. By the side of a rivulet in a valley about three quarters of a mile below Bill o' Jack's, Greenfield. Pit sides on Lindow Common, plentiful. Eaton Moss, near Macclesfield.

## CLASS. SYNGENESIA.

### ORDER. POLYGAMIA ÆQUALIS.

#### TRAGOPOGON. LINN. *Compositæ* N. O. ~~LEGUMINOSÆ~~.\*

1. *T. MINOR*. FRIES. *T. PRATENSIS*. L. SM. *T. MAJOR*.  
HOOK. Smaller Goat's-beard. Go to bed at noon. E. B. 434.  
June—July. B.

Meadows and pastures. Frequent. Fields between Broughton Bridge and the Suspension Bridge, plentiful. Meadows on the banks of the Mersey, near Chorlton. Meadows on the banks of the Medlock, near Clayton Bridge. Various places near Leigh. Many other places.

2. *T. PORRIFOLIUS*. L. Purple Goat's-beard. Salsify. E. B.  
638. June. B.

Found in a field near Prestwich in the year 1844 (Mr. J. Horsefield).

\* As nearly the whole of the genera comprised in this class belong to the natural order *Leguminosæ*, it has been thought better to insert the natural order only at the commencement of the class, without giving it for each genus. The same has been done with respect to the *Graminæ* and *Umbelliferae*.

## THRINCIA. ROTH.

1. *T. HIRTA*. ROTH. *APARGIA HIRTA*. SM. *LEONTODON HIRTUM*. L. Deficient Hawkbit. Hairy Hawkbit, or Dandelion. E. B. 555. July—August. P.

Heaths, meadows, and pastures. Common. Hale Moss. Lindow Common. About Wilmslow, very common. Near Ringway and Styall, frequent. In the vicinity of Blakeley and Moston. Fields on the banks of the Tame, at Haughton Vale. Tyldesley. Thornham.

## LEONTODON. LINN.

1. *L. HISPIDUM*. L. *APARGIA HISPIDIA*. SM. HOOK. Rough Hawkbit, or Dandelion. E. B. 554. June—September. P.

Meadows and pastures, especially near the banks of rivers. Meadows on the banks of the Irwell, Mersey, and Medlock, plentiful. Similar situations on the banks of the Tame. Several places near Tyldesley.

## OPORINIA. DON.

1. *O. AUTUMNALIS*. DON. *APARGIA AUTUMNALIS*. SM. HOOK. *LEONTODON AUTUMNALE*. L. Autumnal Hawkbit, or Dandelion. E. B. 830. August—September. P.

Meadows and pastures. Abundant.

## HYPOCHÆRIS. LINN.

1. *H. GLABRA*. L. Smooth Cat's-ear, or Hawk-weed. E. B. 575. July—August. A.

Occasionally at Bowdon, but rare.

2. *H. RADICATA*. L. Long-rooted Cat's-ear, or Hawk-weed. E. B. 831. July—August. P.

Meadows, pastures, and hedge banks. Very common.

## LACTUCA. LINN.

1. *L. MURALIS*. D. C. *PRENANTHES MURALIS*. L. SM. Ivy-leaved Wall Lettuce. E. B. 457. July. P.

Cotterill Wood, abundant. Woods near Marple. Reddish Vale. Mere and Boggart-hole Cloughs. Several places about Leigh. Early Banks Wood, near Staly Bridge.

## CREPIS. LINN.

1. *C. VIRENS*. L. *C. TECTORUM*. SM. Smooth Hawk's-beard. Smooth Succory Hawk-weed. E. B. 1111. July—August. A.

Meadows, pastures, clover fields, and frequently on old roofs.

2. *C. PALUDOSA*. MOENCH. *HIERACIUM PALUDOSUM*. L. SM.  
Marsh Succory-leaved Hawk-weed. E. B. 1094. June—July.  
P.

Moist woods and thickets. Near Marple. Reddish and Haughton Vales. Mere Clough. Woods near Clifton. Coutacre Clough, near Tyldesley. Dean Church Clough.

### SONCHUS. LINN.

1. *S. OLERACEUS*. L. Common Sow-thistle. E. B. 843. June—August. A.

Waste and cultivated ground. Common.

Subject to considerable variation.

*Sonchus oleraceus* seems to have nearly the same properties as the dandelion and succory; but it is little regarded as a medicine. It is a favourite food with hares and rabbits, and is said to be eaten by goats, sheep, and swine; but not to be relished by horses. The young tender leaves are in some countries boiled and eaten as greens; and it is even affirmed that the tender shoots of the smooth variety, boiled in the manner of spinach, are superior to any greens in common use. Nearly the same thing may be affirmed of *S. arvensis*, *palustris*, and other species.—*Ency. Plants*. 669.

2. *S. ARVENSIS*. L. Corn Sow-thistle. E. B. 674. August—September. A.

Ploughed fields. Very common.

### TARAXACUM. JUSS.

1. *T. OFFICINALE*. WIGG. *LEONTODON TARAXACUM*. L. SM.  
HOOK. Common Dandelion. E. B. 510. May—September.  
P.

Meadows and pastures. Everywhere.

Extremely variable in the form of the leaves.

### BORKHAUSIA. MOENCH.

1. *B. SETOSA*. HALL. *CREPIS SETOSA*. BAB. Bristly Borkhausia, or Hawk's-beard. August. A.

Occasionally in cultivated fields, especially in company with *Lolium italicum*. Fields near Chorlton. Near Prestwich, Withington, and Eccles, it has been observed during the last six years.

This plant was discovered by me six years ago, and communicated by me to Dr. Wood.

### HIERACIUM. LINN.

1. *H. PILOSELLA*. L. Mouse-ear Hawk-weed. E. B. 1093.  
May—July. P.

Dry pastures and hedge banks. Common.

2. *H. AURANTIACUM*. L. Orange Hawk-weed. Grim the collier.  
E. B. 1469. June—September. P.

This plant has not been found during the last twenty years at Failsworth, as mentioned by Smith, Withering, Turner, and Dillwyn. It is said to grow near Mossley (Mr. Moss).

It was believed formerly, that birds of prey made use of the juice of this kind of plant to strengthen their vision, whence it was called *Hieracium*, from a hawk; the French word *Eperviere*, the English *Hawk-weed*, and the German *Habichskraut*, all bear witness to the universal belief in this very strange opinion. An extensive genus of plants, many of which, especially *H. aurantiacum*, are objects deserving cultivation; others are of little interest; but all most difficult to distinguish or characterise. The species appear to intermix with the same facility as the roses and willows.—*Ency. Plants*.

3. *H. MURORUM*. L. Broad-leaved Wall Hawk-weed. E. B.  
2082. June. P.

Rocky banks of the Goyt, about half a mile below Marple Aqueduct.

4. *H. SYLVATICUM*. Sm. Wood Hawk-weed. E. B. 2031.  
July—August. P.

Woods and ditch banks. Frequent.

5. *H. BOREALE*. FRIES. *H. SABAUDUM*. Sm. Hook. Northern  
Hawk-weed. E. B. 349. August—September. P.

Woods, groves, thickets, and ditch banks. Very common and plentiful.

6. *H. SABAUDUM*. BAB.

Near Rosthern, in Cheshire.

A mere variety of *H. Boreale*.

7. *H. TRIDENTATUM*. FRIES. BAB. 2nd ed. *H. RIGIDUM*.  
BAB. 1st. ed. July. P.

Near the Red-brows, Didsbury. Near Bucklow Hill. Between Chorlton and Stretford.

This plant was discovered by me six years ago, and communicated by me to Dr. Wood, before it appeared in *Babington's Manual*.

8. *H. UMBELLATUM*. L. Narrow-leaved Hawk-weed. E. B.  
1771. August. P.

Hedge banks in several places about Chorlton and Withington. At Bowdon. Near Dunham and Rosthern.

## LAPSANA. LINN.

1. *L. COMMUNIS*. L. Common Nipple-wort. E. B. 844. July  
—August. A.

Cultivated fields, road sides, and waste ground. Common.

## CICHORIUM. LINN.

1. C. INTYBUS. L. Wild Succory, or Chicory. E. B. 539.  
July—August. B. or P.

Found occasionally in the neighbourhood of Hough End, Withington, sparingly. Near Bowdon.

The leaves of *Cichorium Intybus* are employed by the French, under the name of *Barbe de Capucin*, as a kind of winter salad, for which purpose the leaves are blanched like endive. The most common method of cultivating the plant is to sow the seed in drills, in the end of July, and keep the plants about six inches apart, and quite free from weeds. In the winter, the roots are taken out of the ground, and packed up in a warm cellar, among earth, in layers, like bottles in a wine cellar, the crowns only of the roots being exposed. In a few days, young leaves are produced in great abundance, from the situation in which they are cultivated, quite blanched, and, if not grown too rapidly, with an agreeable taste. There is also a variety of *C. Intybus*, called *Chicorée de café*, which is cultivated extensively in France for the sake of its roots, which are taken up in the winter season, cut into squares, dried artificially, and afterwards, being roasted, are ground along with coffee, for which they serve as an adulteration. There are those, however, who assert, that it is to this admixture of Succory root that the superior flavour of the French to the English coffee is to be attributed.—*Ency. Plants.* 679.

## ARCTIUM. LINN.

1. A. LAPP. L. Common Burdock. Clot-bur. E. B. 1228.  
July—August. B.

Waste places and way sides.

Few quadrupeds, except the ass, will eat the plant; but birds feed on the seeds, and snails and caterpillars on the leaves. The stems, stripped of their rind, before the flowers appear, may be eaten, boiled or raw, with oil or vinegar. Withering says, a decoction of the roots is esteemed by some equal to that of sarsaparilla. Burnt green, between the time of flowering and seeding, three pounds of the ashes produced sixteen ounces of very white alkaline salts, said to be as good as the best potash.—*Ency. Plants.* 680.

## SERRATULA. LINN.

1. S. TINCTORIA. L. Common Saw-wort. E. B. 38. August—September. P.

Upper part of Mere Clough. Quarter of a mile westward of Prestwich Church. Near Gorton. Heaton, near Bolton. In a field on the left-hand side of the new Cheetham Hill road, about a quarter of a mile from the end of Broughton lane. Thornham, near Tandle Hill.

This plant is very much used by the dyers to give a yellow colour, but is inferior to the reseda, therefore its use is confined to the coarser woollen cloths. Goats eat it; horses are not fond of it; sheep, swine, and cows, refuse it. W. 909.

## CARDUUS. LINN.

1. C. NUTANS. L. Musk Thistle. E. B. 1112. July—August.  
A. or B.

Fields near the road side between Disley and Whaley. Near Glossop.

2. *C. LANCEOLATUS*. L. *CNICUS LANCEOLATUS*. SM. HOOK.  
Spear Thistle. E. B. 107. July—August. B.

Pastures, road sides, and waste places. Common.

Few plants are more disregarded than this, and yet its use is very considerable. If a heap of clay be thrown up, nothing would grow upon it for several years, did not the seeds of this plant, wafted by the wind, fix and vegetate thereon. Under the shelter of this, other vegetables appear, and the whole soon becomes fertile. Sheep and swine refuse it; neither horses, cows, nor goats, are fond of it. W. 913. The species inhabit Europe, Asia, and Africa; there are scarcely any in America, and none in the southern hemisphere.—*Ency. Plants*. 681.

3. *C. ARVENSIS*. CURT. *SERRATULA ARVENSIS*. L. *CNICUS ARVENSIS*. SM. HOOK. Creeping Thistle. E. B. 975. July. P.

Fields, road sides, and waste places. Abundant.

4. *C. PALUSTRIS*. L. *CNICUS PALUSTRIS*. SM. HOOK. Marsh Thistle. E. B. 974. July—August. A.

Moist situations, woods, meadows, and sides of ditches.

5. *C. HETEROPHYLLUS*. L. *CNICUS HETEROPHYLLUS*. SM. HOOK. Melancholy Thistle. E. B. 675. July. P.

Field near Radcliffe. Field near Mere Clough (Mr. J. Horsefield). Dean Church Clough, originally planted (Mr. John Martin).

#### SILYBUM. GAERT.

1. *S. MARIANUM*. GAERT. *CARDUUS MARIANUS*. L. SM. HOOK. Milk Thistle. E. B. 976. July. B.

Rare. Hale Moss. Waste ground about Bowdon.

#### CARLINA. LINN.

1. *C. VULGARIS*. L. Common Carline Thistle. E. B. 1144. July—August. B.

Greenfield.

#### BIDENS. LINN.

1. *B. TRIPARTITA*. L. Three-lobed Bur Marigold. Three-lobed Water Agrimony. E. B. 1113. July—August. A.

Moist situations in waste places, by road sides, and in gardens. Frequent.

2. *B. CERNUA*. L. Nodding Bur Marigold. Nodding Water Agrimony. E. B. 1114. August—September. A.

Margins of pits, rivulets, and ditches. Common.

- var. *β. radiata*. *COREOPSIS BIDENS*. L.

On Lindow Common.



## EUPATORIUM. LINN.

1. *E. CANNABINUM*. L. Common Hemp Agrimony. Dutch Hemp. E. B. 428. July—August. P.

Banks of rivers and boggy situations. Hale Moss. Mere Clough. Near Hough End. Staly Brushes. Over Hulton and Coutacre Clough.

## ORDER. POLYGAMIA SUPERFLUA.

## TANACETUM. LINN.

1. *T. VULGARE*. L. Common Tansy. E. B. 1229. August. P.

Banks of the Mersey, in various places between Cheadle and its junction with the Irwell, especially about Carrington. Near Irlam, by the river Irwell.

The common Tansy has a strong, aromatic, and an extremely bitter taste. It is stimulant and carminative, and its seeds are reckoned anthelmintic and sudorific. It is said to drive away bugs from a bed in which it is laid. A distilled water and a kind stomachic bitter is prepared from it. The young leaves are shredded down and employed to give colour and flavour to puddings, especially those made of ground rice; they are also used in omelets and cakes, and those of the curled variety for garnishing. *Ency. Plants.* 697. Cows and sheep eat it; horses, goats, and swine, refuse it.—*Linn.*

## ARTEMISIA. LINN.

1. *A. VULGARIS*. L. Mug-wort. E. B. 978. July—August. P.

Banks of the Irwell and Mersey, abundant. Hedges and waste places. Common.

## GNAPHALIUM. LINN.

1. *G. ULIGINOSUM*. L. Marsh Cud-weed. E. B. 1194. August—September. A.

Waste ground and cultivated fields. Common.

2. *G. SYLVATICUM*. L. var.  $\beta$ . *rectum*. *G. RECTUM*. Sm. Upright Cud-weed. E. B. 124. August. P.

Groves and pastures. In an excavation near the Manchester and Bolton railway, at Agecroft. Fields at Bowdon. Fields near Reddish Mill. Lane side near the Old Hall, Withington. Several places near Leigh. Boggart-hole Clough. Various other places.

## FILAGO. LINN.

1. *F. GERMANICA*. L. *GNAPHALIUM GERMANICUM*. Sm. Common Cud-weed. E. B. 946. June—July. A.

Occasionally found amongst clover, near Hough End. Frequent in fields at Bowdon.

2. **F. MINIMA. FRIES. GNAPHALIUM MINIMUM. SM.** Least Cud-weed. E. B. 1157. July—August. A.

Dry, sandy situations. Rare. Baguley Moor. Cultivated fields at Bowdon, frequent. Not found on Kersal Moor, as stated by Dr. Withering.

#### ANTENNARIA. R. BR.

1. **A. DIOICA. GAERT. GNAPHALIUM DIOICUM. L. SM. HOOK.** Mountain Cud-weed. E. B. 267. June—July. P.

Hilly pastures. Rare. Hill side near the bank of the rivulet, below Bill o' Jack's, Greenfield. Hollinworth, near Mottram. Near Rooley Moor.

#### PETASITES. GAERT.

1. **P. VULGARIS. DESF. TUSSILAGO PETASITES and HYBRIDA. L. SM.** Butter Bur. Fleeer Dock. E. B. 431 and 430. March—April. P.

*Tussilago Petasites*. L. is found on the banks of all the rivers about Manchester, abundantly. *T. hybrida*. equally common with the other, in the same situations, but mostly in separate groups.

The strong creeping roots of these plants are useful in consolidating the loose sandy banks of the rivers on which they grow.

The leaves, which are larger than those of any British plant, afford shelter from rain to poultry and other small animals. It is called butter bur, and pestilent-wort, from its supposed efficacy in the plague.—*Ency. Plants*. 705.

#### TUSSILAGO. LINN.

1. **T. FARFARA. L.** Colt's-foot. E. B. 429. March—April. P.

Moist and clayey situations. Very common and abundant.

*T. Farfara* is a certain indication of a clayey soil, and, according to Dr. Withering, it is the first plant which vegetates in marl or limestone rubble. The cotton of the leaves, wrapped in a rag dipped in a solution of saltpetre, and dried in the sun, makes an excellent tinder. The leaves are the basis of the British herb tobacco; they have been regarded as expectorant from the earliest ages, having been smoked through a reed in the days of Dioscorides, with a view of relieving the chest from accumulated mucus in catarrh, asthma, and phthisis. At present, though it occupies a place in the *Materia Medica*, very little reliance is placed on its powers.—(*London Disp.* p. 542.) *Ency. Plants*. 704.

#### ERIGERON. LINN.

1. **E. ACRE. L.** Blue Flea-bane. E. B. 1158. August. P.

This plant grew, some years ago, on the remains of Sale Moor; but I have not seen it for the last seven years in that station.

## SENECIO. LINN.

1. *S. VULGARIS*. L. Common Groundsel, or Simson. E. B. 747. All the year. A.  
Waste and cultivated ground. Everywhere.
2. *S. SYLVATICUS*. L. Mountain Groundsel. E. B. 748. July—September. A.  
Pastures and road sides, in dry, gravelly situations. Frequent.
3. *S. ERUCIFOLIUS*. L. *S. TENUIFOLIUS*. SM. HOOK. Hoary Rag-wort. E. B. 574. August. P.  
Hedges in the fields between Chorlton and Stretford, plentiful. Fields and hedges near Patricroft, plentiful. Victoria Park and its vicinity. Pastures between Mossley and Greenfield. About Compstall Bridge. Many places near Leigh.
4. *S. JACOBÆA*. L. Common Rag-wort. Kettle Dock. E. B. 1130. July—August. P.  
Pastures and road sides. Abundant.
5. *S. AQUATICUS*. HUDS. Marsh Rag-wort. E. B. 1131. July—August. P.  
Moist situations, sides of ditches, meadows, and pastures. Very common.
6. *S. SARACENICUS*. L. Broad-leaved Rag-wort. E. B. 2211. August. P.  
Left bank of the Mersey, opposite Woolston and Bruch, near Warrington (Mr. W. Wilson).

## SOLIDAGO. LINN.

1. *S. VIRGAUREA*. L. Common Golden Rod. E. B. 301. July—August. P.  
Woods, hedges, and thickets. Common. Banks of the Irwell near Ringley and Clifton. Woody banks of the Goyt, in Marple Vale, abundant. Woods and thickets in Haughton and Reddish Vales, common. Bamford Wood. Near Staly Bridge. Many other places.

## PULICARIA. GÆRT.

1. *P. DYSENTERICA*. GÆRT. *INULA DYSENTERICA*. L. SM. Common Flea-bane. E. B. 1115. August. P.  
Moist meadows and pastures. Common. Rough pastures near the Manchester Water-works. Rough pastures near the Hyde road, between Ardwick and Belle Vue. Fields between Monton Green and the Liverpool railway, abundant. Victoria Park, and other places about Rusholme. Kersal Moor.

## BELLIS. LINN.

1. B. PERENNIS. L. Common Daisy. Dog Daisy. E. B. 424.  
March—November. P.

Meadows and pastures. Everywhere.

The simple daisy was once a flower of great renown, and was called in England either herb Margaret, or Day's-eye; and it still bears the name of Marguerite, in France. It was the device of the unfortunate Margaret of Anjou; and when that queen was in prosperity, her nobles wore it in wreaths in their hair, or had it embroidered on their robes. That noble-minded woman, Margaret of Valois, the friend of Erasmus and of Calvin—she who could retire from the admiration and glitter of courts, to study her Bible and her own heart—she too had the daisy flower worn in her honour, and was called by her brother, Francis I., his "Marguerite of Marguerites."—*Wild Flowers*. 16.

"There is a flower, a little flower,  
With silver crest and golden eye,  
That welcomes every coming shower,  
And welcomes every sky.

"And thou 'Wee crimson tipped flower,'  
Gatherest thy fringed mantle round  
Thy bosom, at the closing hour  
When night-drops bathe the turfy ground."

## CHRYSANTHEMUM. LINN.

1. C. LEUCANTHEMUM. L. Greater Daisy. Ox-eye. Moon Flower. E. B. 601. June—August. P.

Meadows and pastures. Plentiful.

2. C. SEGETUM. L. Yellow Ox-eye. Corn Marigold. E. B. 540. June—September. A.

Cultivated fields. Frequent. Plentiful about Bowdon.

## PYRETHRUM. HALL.

1. P. PARTHENIUM. SM. MATRICARIA PARTHENIUM. L. Common Feverfew. E. B. 1231. July—August. P.

Hedges and waste places, especially near houses. Not very common.

*P. Parthenium* has a strong, unpleasant smell, and a bitter taste. It is used externally in the form of lotion and of poultice, and internally as an infusion for colic, hysterical affections, and weak digestion.—*Ency. Plants*. 722.

2. P. INODORUM. SM. CHRYSANTHEMUM INODORUM. L. Corn Feverfew. Scentless May-weed. E. B. 676. July—October. A.

Cultivated fields, road sides, and waste places. Very common.

## MATRICARIA. LINN.

1. M. CHAMOMILLA. L. Common Wild Chamomile. E. B. 1232. July—September. A.

Waste places and cultivated fields. Local. Old Trafford. Near Withington Old Hall. Near Arden Hall, Cheshire. Near a farmhouse between Gorton and Reddish. At Reddish Hall.

## ANTHEMIS. LINN.

1. A. NOBILIS. L. Common Chamomile. E. B. 980. August—September. P.

Monton Green. This plant has long been found in this station. During the year 1847 the ground was pared, and the plants carried away; it may, however, make its appearance at some future time.

*A. nobilis* is in considerable repute, both in the popular and scientific *Materia Medica*. The flowers, which are the parts used, have a strong and fragrant smell, and a bitter, aromatic taste; both are extracted by water and alcohol. The principles appear to be bitter extractive, resin, and essential oil. Medicinally, the flowers are considered tonic, carminative, and slightly anodyne; yet, when a strong infusion of them is taken in a tepid state, it proves powerfully emetic. Given in substance, united with opium and astringents, if the bowels be easily affected, they have been successfully used for the cure of intermittents; and the infusion, in combination with ginger, or other aromatics, and the alkalies, is an excellent stomachic in dyspepsia, chlorosis, gout, flatulent colic, and chronic debility of the intestinal canal. The tepid strong infusion is a ready emetic, and is often employed to promote the operation of other emetics. By coction in water, the essential oil is dissipated; chamomile flowers, therefore, ought never to be ordered in decoctions. Externally, they are used as fomentations in colic, intestinal inflammation, and to phagedenic ulcers; and their infusion is also found to be a useful addition to emollient anodyne clysters, in flatulent colic, and in irritations of the rectum, producing tenesmus.—*London Disp.* p. 158. There is a double variety, generally grown for the apothecaries; it is more ornamental than the single, but much less efficacious as a medicine.—*Ency. Plants.* 724.

2. A. COTULA. L. Stinking May-weed. E. B. 1772. August—September. A.

Road sides and waste places. Rare. By the side of the railway, between Old Trafford and Stretford, plentiful.

3. A. ARVENSIS. L. Corn Chamomile. E. B. 602. June—July. A.

Cultivated fields, especially amongst clover. Frequent. About Chorlton, Withington, and Didsbury. Occasionally in fields near Prestwich.

## ACHILLÆA. LINN.

1. A. PTARMICA. L. Sneezewort. Goose-tongue. E. B. 757. July—August. P.

Meadows, pastures, and cultivated fields. Plentiful.

2. A. MILLEFOLIUM. L. Common Yarrow, or Milfoil. E. B. 758. Summer months. P.

Pastures and road sides. Plentiful.

## ORDER. POLYGAMIA FRUSTRANEA.

## CENTAUREA. LINN.

1. *C. NIGRA*. L. Black Knap-weed. Hard-heads. E. B. 278.  
July—September. P.  
Meadows and pastures. Abundant.
2. *C. CYANUS*. L. Corn Blue-bottle. Bachelor's Button. E. B. 277. July—August. A.  
Cultivated fields. Occasionally.

## CLASS. GYNANDRIA.

## ORDER. MONANDRIA.

## ORCHIS. LINN. N. O. ORCHIDEÆ.

1. *O. MORIO*. L. Green-winged Meadow Orchis. E. B. 2059.  
June. P.

Meadows on the banks of rivers. Meadows near Carrington Ferry, plentiful. Banks of the Irwell, between Barton and Irlam. Meadows on the left bank of the Mersey, about a quarter of a mile above Jackson's Boat.

*Orchis*. This is a curious and beautiful genus, but rather difficult of culture. Few of the species produce seeds, but are propagated by their bulbs or tubers, which, in most of the species, are of a peculiar structure and economy. An *Orchis* being taken out of the ground, is found with two solid masses, ovate or fasciculated at the base of the stem, above which proceed the thick fleshy fibres which nourish the plant. One of these bulbs or tubers is destined to be the successor of the other, and is plump and vigorous, whilst the other, or decaying one, is an offset, from the centre of which has proceeded the existing stem, and the plump one is an offset, from the centre of which the stem of the succeeding year is destined to proceed. By this means the actual situation of the plant is changed about half an inch every year; and as the offset is always produced from the side opposite to the withered bulb, the plant travels always in one direction at that rate, and will in a dozen years have marched six inches from the place where it formerly stood.—*Ency. Plants*. 752.

2. *O. MAScula*. L. Early Purple Orchis. E. B. 631. May. P.  
Woods, meadows, and pastures. Cotterill Wood, abundant. Banks of the river Bollin. Various other places in the neighbourhood of Ringway. Barlow Wood. Woods near the right bank of the Mersey, between the Red-brows and Norten. Fields near the canal, between Hatherlow and Marple Aqueduct. Bardsley Wood.
3. *O. MACULATA*. L. Spotted Palmate Orchis. E. B. 632.  
June—July. P.

Woods, meadows, and pastures. Common.

4. *O. LATIFOLIA*. L. Marsh Palmate Orchis. E. B. 2308.  
June. P.

Meadows near the banks of rivers. Meadow near the Bollin Bridge, below Dunham Park. Meadow near Stretford Aqueduct. In company with *O. Morio*. above Jackson's Boat. Near the river at Irlam.

#### GYMNADENIA. R. BR. N. O. ORCHIDEÆ.

1. *G. CONOPSEA*. R. BR. *ORCHIS CONOPSEA*. L. SM. Aromatic Palmate Orchis. E. B. 10. July. P.

Meadows and pastures. Rare. Field at Hollingsworth, near Mottram. Field near the Dean rivulet, below Ashworth Chapel (Mr. J. Horsefield).

2. *G. ALBIDA*. RICH. *SATYRIUM ALBIDUM*. L. *ORCHIS ALBIDA*. SM. *HABENARIA ALBIDA*. HOOK. Small White Orchis. E. B. 505. June—July. P.

Field at Pilsworth, Pilkington. Rough pastures near Saddleworth. Near the Gravel-hole, Bolton. Near Milnrow. Not unfrequent in the mountainous districts.

#### HABENARIA. R. BR. N. O. ORCHIDEÆ.

1. *H. VIRIDIS*. R. BR. *ORCHIS VIRIDIS*. SM. *SATYRIUM VIRIDE*. L. Frog Orchis. E. B. 94. July—August. P.

Pastures in the hilly districts, not unfrequent. Near Mottram, Saddleworth, Rochdale, and Bolton.

2. *H. CHLORANTHA*. BAB. *ORCHIS BIFOLIA*. L. SM. *H. BIFOLIA*, var.  $\beta$ . *chlorantha*. HOOK. Butterfly Orchis. E. B. 22. June—July. P.

Moist woods, meadows, groves, and pastures. Not unfrequent. Rough pastures in Marple Vale, plentiful. Wood near the canal, about a mile beyond Staly Bridge. Meadows at Bucklow Hill. Meadow by a brook near Kersal Mill. Shackerley, near Leigh. Middle Hulton, near Dean. Clayton Vale.

#### LISTERA. R. BR. N. O. ORCHIDEÆ.

1. *L. OVATA*. R. BR. *OPHRYS OVATA*. L. Common Twayblade. E. B. 1548. June—July. P.

Woods, moist meadows, and pastures. Cotterill Wood. Meadows and pastures in Marple Vale. Meadows on the left bank of the Mersey, near Jackson's Boat. Field above Reddish Mill. Field on the right bank of the Irwell, about three quarters of a mile below Clifton Aqueduct. Right bank of the Irwell, nearly opposite Trafford Hall. Meadows near Hollins Ferry.

2. *L. CORDATA*. R. BR. *OPHRYS CORDATA*. L. Heart-leaved  
Mountain Twayblade. E. B. 358. June. P.

Hilly pastures. Rare. At the old reservoir above Staly Brushes.  
Near Knoll Hill, beyond Heywood (Mr. J. Horsefield).

NEOTTIA. LINN. N. O. ORCHIDEÆ.

1. *N. NIDUS-AVIS*. RICH. *OPHRYS NIDUS-AVIS*. L. *LISTERA*  
*NIDUS-AVIS*. SM. HOOK. Bird's-nest. E. B. 48. May—  
June. P.

Woods and thickets. Rare. Wood on the left bank of the Etherow,  
near Mottram, sparingly (Mr. J. Tinker). Said to have been  
found in Bamford Wood.

Mr. Hall observes, that woods, in some parts of Lancashire, are cut down every  
fifteen years; that, for six or eight years after they are cut, this plant is not to be found,  
but as soon as the grasses are chiefly destroyed by the shade, it again makes its appear-  
ance, and in some places rather plentifully.—W.

EPIPACTIS. R. BR. N. O. ORCHIDEÆ.

1. *E. LATIFOLIA*. SW. *SERAPIAS LATIFOLIA*. L. Broad-  
leaved Helleborine. E. B. 269. August. P.

Woods, groves, and thickets. Not unfrequent. Wood at Pilkington,  
near the residence of Mark Philips, Esq. Mere Clough,  
sparingly. Boggart-hole Clough. Plantation near Lichfield Hall,  
plentiful. Meadows near Trafford Hall, in company with *Listera*  
*ovata*. Near Reddish Mill. Atherton Wood, and several places  
near Leigh. Several places between Cheadle and Styall.

I have observed some irregularity in the appearance of plants of this species, in  
places where they have been known to grow. This may be owing either to the tubers  
dying in the ground, or to their lying dormant for several years, at the end of which  
time, in the latter case, some of the plants may show themselves. In consequence of  
this irregularity, stations given for this plant cannot fully be relied on, except where the  
plant is rather plentiful, in which case some of them may re-appear. Other species of  
*Orchideæ* are subject to a similar degree of irregularity.

2. *E. PALUSTRIS*. SW. *SERAPIAS LONGIFOLIA*. L. Marsh  
Helleborine. E. B. 270. July. P.

Moston, near the residence of the late Colonel Taylor (Miss E.  
Potts).

MALAXIS. SW. N. O. ORCHIDEÆ.

1. *M. PALUDOSA*. SW. E. B. 72. August—September. P.

Near Milnrow (Mr. William Bentley).



## CLASS. MONŒCIA.

## ORDER. MONANDRIA.

## EUPHORBIA. LINN. N. O. EUPHORBIACEÆ.

1. E. HELIOSCOPIA. L. Sun Spurge. Wart-wort. E. B. 883.  
July—October. A.

Cultivated and waste ground. Plentiful.

*E. helioscopia* has a peculiarly acrid, milky juice, which is often applied by country people to eat off warts; but should be used with caution where the parts are tender. According to Linnæus, sheep eat it, and are purged by it, and their flesh acquires a bad taste; but this is not the case with cows.—*Ency. Plants.* 456.

2. E. PEPLIS. L. Petty Spurge. E. B. 2002. July—October.  
A.

Found in such situations as the preceding, but more local.

3. E. EXIGUA. L. Dwarf Spurge. E. B. 1336. July—August.  
A.

Corn fields. Rare. In the neighbourhood of Hough End, occasionally. Near Baguley. Near Booth's Bank, Worsley. Corn fields near the left bank of the Goyt, in Marple Vale, plentiful.

## CALLITRICHE. LINN. N. O. HALORAGÆÆ.

1. C. VERNA. L. Vernal Water Star-wort. E. B. 722. April—  
June. A.

Ponds and ditches. Abundant. Exceedingly variable.

2. C. AUTUMNALIS. L. Autumnal Water Star-wort. E. B. S.  
2732. June—October. A.

Reservoir at the lower end of Mere Clough. Common in the parish of Leigh (Mr. John Martin).

## ZANNICHELLIA. LINN. N. O. POTAMEÆ.

1. Z. PALUSTRIS. L. Horned Pond-weed. E. B. 1844. July  
—August. P.

Pond in Heaton Park (Mr. John Shaw). Reservoir near Astley (Mr. John Martin).

## ORDER. TRIANDRIA.

## TYPHA. LINN. N. O. AROIDEÆ.

1. *T. LATIFOLIA*. L. Great Cat's-tail, or Reed-mace. E. B. 1455. July—August. P.

Ponds and lakes. Common. In the neighbourhood of Stretford and Chorlton. Ponds in Victoria Park. Pond near Bailey's print works, Pendleton. Several places in the neighbourhood of Leigh. In an arm of the Stockport canal, near Reddish, abundant.

2. *T. ANGUSTIFOLIA*. L. Lesser Cat's-tail, or Reed-mace. E. B. 1456. July—August. P.

Ponds and lakes. Frequent. Rosthern Mere, abundant. Ponds by the road side, near Hale Barn, Cheshire, plentiful. Near Chorlton. Ponds between the village of Chorlton and Longford Hall. Near Withington. Westleigh. In a pit near the road side, opposite the Longsight toll-bar, plentiful. Many other places.

## SPARGANIUM. LINN. N. O. AROIDEÆ.

1. *S. RAMOSUM*. HUDS. *S. ERECTUM*. L. Branched Bur-reed. E. B. 744. July—August. P.

Ponds, ditches, and slow streams. Abundant.

2. *S. SIMPLEX*. HUDS. *S. ERECTUM*, var.  $\beta$ . L. Unbranched Upright Bur-reed. E. B. 745. July—August. P.

Ponds and ditches. Common. About Chorlton, Withington, and Stretford. Baguley Moor. Hale Moss. Many other places. Frequent about Leigh.

3. *S. NATANS*. L. Floating Bur-reed. E. B. 273. July—August. P.

Ponds and ditches. Not uncommon. Seaman's Moss-pits, and a pond near the Manchester water works, are the only places where I have seen this plant in flower.

## CAREX. LINN. N. O. CYPERACEÆ.

1. *C. DIOICA*. L. Creeping, Separate-headed, or Dioecious Carex. E. B. 543. May—June. P.

Wet, boggy places. Rare. Boggy parts of Hale Moss, plentiful. Knutsford Moor.

2. *C. PULICARIS*. L. Flea Carex. E. B. 1051. May—June. P.

Spongy bogs. Frequent. Bog near the margin of Rosthern Mere, abundant. Hale Moss, plentiful. Sailors' Shore, near Pilkington. Coutacre Clough, and Padiham Farm, Shackerley.

3. *C. INTERMEDIA*. GOOD. Soft Brown Carex. E. B. 2042. June. P.

Near the border of Rosthern Mere, sparingly. Near White Moss.

4. *C. VULPINA*. L. Great Compound Prickly Carex. E. B. 307. June. P.

Woods and shady ditch banks. Not very common. Cotterill Wood, plentiful. Banks of ditches near Ringway and Styall, common. Near Leigh, abundant.

5. *C. MURICATA*. L. Greater Prickly Carex. E. B. 1097. May—June. P.

Dryish pastures and ditch banks. Rare. Atherton and Westleigh (Mr. John Martin). Hedge bank by the road side, about half way between Stockport and Marple, plentiful.

6. *C. TERETIUSCULA*. GOOD. Lesser Panicked Carex. E. B. 1065. May—June P.

Wet bogs. Frequent. Pitsteads at Levenshulme. Pitstead about a quarter of a mile north-west of Withington Hall, plentiful. Seaman's Moss-pits.

The plant found in this last-mentioned station is the var. *B. Ehrhartiana*, Bab., and the *C. pseudo-paradoxa*, Gibs., which occasioned so much discussion, through the medium of the *Phytologist*. It differs from *C. teretiuscula* in its more lax spike, and more caespitose manner of growth; but, with due deference to the opinion of Mr. Gibson, I cannot consider it otherwise than as a mere variety of that species. It may be as well here to mention, that the plant was first shown by me to all the disputants, although my name never appears in the matter.

7. *C. PANICULATA*. L. Great Panicked Carex. E. B. 1064. June. P.

Boggy places. Common. Bog at Rosthern Mere, plentiful. Reddish Vale, nearly opposite Arden Hall. Boggy part of Prestwich Clough. Black Clough, near the Manchester race-course. Boggy part of the wood at Red-brows. Pit near the road side, beyond Barton. Many other places.

8. *C. AXILLARIS*. GOOD. Axillary Clustered Carex. E. B. 993. May. P.

Woods and shady ditch banks. Very rare. Lane in Westleigh.

9. *C. REMOTA*. L. Remote Carex. E. B. 832. June. P.

Woods, and moist, shady ditch banks. Common.

10. *C. ELONGATA*. L. Elongated Carex. E. B. 1920. May. P.

Pitstead near the lane-ends, Chorlton. Pit sides about a quarter of a mile south-east of Longford Hall, plentiful. Sides of pits and in pitsteads, between Eccles and Swinton, plentiful. Pitstead in a field about sixty yards south-east of Town-lane Bridge, near Astley.

11. *C. STELLULATA*. GOOD. Little Prickly Carex. E. B. 806. May—June. P.

Wet, boggy situations. Boggy part of Kersal Moor. Rosthern Mere. Boggy parts of Hale Moss. Near Reddish Mill, plentiful.

12. *C. CURTA*. GOOD. White Carex. E. B. 1386. June. P.

Wet bogs. Very common. White, Carrington, Clifton, and Chat Mosses. Pitsteads and pits about Chorlton, Withington, Stretford, and many other places.

13. *C. OVALIS*. GOOD. Oval-spiked Carex. E. B. 306. May. P.

Bogs and marshy places. Common.

14. *C. GOODENOVII*. GAY. *C. VULGARIS*. FRIES. *C. CÆSPITOSA*. SM. HOOK. Tufted Bog Carex. E. B. 1507. May. P.

Mosses, and boggy margins of pits and pitsteads. Frequent.

- var.  $\beta$ . *C. ANGUSTIFOLIA*. SM.

Behind the Bull and Punch Bowl, Stretford. Reservoir belonging to the bleach works, at the lower end of Mere Clough; and in several other places.

This var. differs from the true *C. Goodenovii* in being taller, frequently attaining to the height of three feet, and also in having the leaves narrower.

15. *C. CÆSPITOSA*. L. *C. STRICTA*. GOOD. SM. HOOK. Straight-leaved Carex. E. B. 914. April. P.

Bogs. Rare. Margin of Rosthern Mere, abundant.

16. *C. ACUTA*. L. Slender-spiked Carex. E. B. 580. May. P.

Boggy places. Not common. Margin of Rosthern Mere, plentiful. Pitstead near the Three Lane-ends, Chorlton.

17. *C. FLAVA*. L. var.  $\gamma$ . Yellow Carex. E. B. 1294. May. P.

Both states of this plant are common about Manchester.

This plant, in its larger state, has been generally considered to be the true *C. flava*; when it reaches the size of two or three inches only, it has been called *C. Ederi*; but neither of these varieties possesses the characters of either *C. flava* or *Ederi*, the former wanting the deflexed beak of the fruit, and the latter possessing larger fruit, and spikes never androgynous.

Though I have introduced this plant as a variety of *C. Flava*, I have some doubt whether it may not be considered as a distinct species. The true *Flava* I have not seen in this part of the country; but, in the neighbourhood of Settle, I have observed it as a very common plant. In size, habit and colour, it is strikingly different from the plant which we have here, and which has been usually taken for it by the botanists of this neighbourhood.

18. *C. OEDERI*. EHRH. *C. FLAVA*. var.  $\beta$ . *Oederi*. BAB.  
*Oederian Carex*. E. B. 1773. May—June. P.  
 Moist places. Very rare. Border of Mere Mere, Cheshire.
19. *C. FULVA*. GOOD. *Tawny Carex*. E. B. 1295. June. P.  
 Boggy Situations. Rare. Hale Moss. Hyde.
20. *C. PALLESCENS*. L. *Pale Carex*. E. B. 2185. June. P.  
 Moist situations. Frequent. Mere Clough. Boggart-Hole Clough.  
 Reddish Vale, upon the brow-side near Reddish Mill. Rough de-  
 clivity near the Goyt, about two miles below Marple Aqueduct.  
 Coutacre Clough, Tyldesley.
21. *C. BINERVIS*. SM. *Green-ribbed Carex*. E. B. 1235. June.  
 P.  
 Moors and rough pastures. Frequent. Kersal Moor, sparingly.  
 Near the shooting-butts, Pilkington. Alderley Edge. Frequent  
 in the mountainous districts.
22. *C. LÆVIGATA*. SM. *Smooth-stalked Beaked Carex*. E. B.  
 1387. June. P.  
 Moist situations. Not uncommon. Bank opposite the reservoir  
 at the bottom of Mere Clough. In the same situation as *C. pal-*  
*lescens* between Stockport and Marple. Field above Rosthern  
 Mere, near the village. Coutacre Clough, near Tyldesley. Various  
 other places.
23. *C. PANICEA*. L. *Pink-leaved Carex*. E. B. 1505. May. P.  
 Marshy situations. Common.
24. *C. STRIGOSA*. HUDS. *Loose Pendulous Carex*. E. B. 994.  
 May—June. P.  
 Moist places in woods. Not common. Cotterill Clough, plentiful.  
 Wood by the side of the Goyt, near Marple. Hurst Clough,  
 near Ringley (Mr. J. Horsefield). Reddish Wood.
25. *C. SYLVATICA*. HUDS. *Pendulous Wood Carex*. E. B.  
 995. May—June. P.  
 Moist woods, and rough brow sides. Frequent. Near Reddish  
 Mill. Cotterill Clough. Between Stockport and Marple, in the  
 same situation with *C. pallescens* and *levigata*. Shackerley Mill,  
 and Coutacre Clough, near Tyldesley.
26. *C. PENDULA*. HUDS. *Great Pendulous Carex*. E. B. 2315.  
 May—June. P.  
 Moist woods in various places. Not very general. Cotterill  
 Clough, abundant. Red-brows Wood, plentiful. Marple Wood.  
 Bamford Wood, plentiful. Left bank of the Goyt, below Marple  
 Aqueduct. River side, half a mile east of Bolton parish church.  
 Near Tonge Fold (Mr. J. Martin).

27. *C. PSEUDO-CYPERUS*. L. Bastard Cyperus Carex. E. B. 242. June. P.

Boggy margins of ponds, and in old pitsteads. Very common. Near Rusholme, Withington, Chorlton, Stretford, Sale, Altrincham, and Bowdon. Also about Astley and Bedford. Various places on the north and north-east of Manchester.

28. *C. PRÆCOX*. JACQ. Vernal Carex. E. B. 1099. April—May. P.

Dry pastures and hedge banks. Frequent. Several places about Prestwich. Hilly districts in the neighbourhood of Manchester. Near Cotterill Wood. Near the borders of Rosthern Mere.

29. *C. PILULIFERA*. L. Round-headed Carex. E. B. 885. June. P.

Heaths and moors. Common. Plentiful upon Kersal Moor. Also upon Hale Moss. Alderley.

30. *C. GLAUCA*. SCOP. *C. RECURVA*. SM. HOOK. Glaucous Heath Carex. E. B. 1506. May—June. P.

Moist meadows and pastures. Common.

31. *C. HIRTA*. L. Hairy Carex. E. B. 685. May—June. P.

Woods, wet meadows, and pastures, and sides of ditches. Frequent.

32. *C. AMPULLACEA*. GOOD. Slender-beaked Bottle Carex. E. B. 780. May—June. P.

Sides of ponds, and other boggy situations. Common. Margin of Rosthern Mere, abundant. Pits about Bowdon, plentiful. Hale Moss. In the neighbourhood of Stretford and Chorlton. Plentiful near Middleton and Pilkington. Lime-pits, Bedford, near Leigh.

There grows on Hale Moss, a variety of this species with narrow involute leaves, and with fruit resembling that of *C. vesicaria*; but it has not the acute angles on the stem, nor the roughly carinated leaves which that species possesses.

33. *C. VESICARIA*. L. Short-spiked Bladder Carex. E. B. 779. May—June. P.

Situations similar to those of the preceding species. Not frequent. Pitsteads at Three Lane-ends, Chorlton. Marshy meadow at the bottom of the Red-brows. Near Chat Moss. Shackerley Mill. Mere Mere, plentiful.

34. *C. PALUDOSA*. GOOD. Lesser Common Carex. E. B. 807. May. P.

Sides of ponds and ditches, and other wet situations. Common. Rosthern Mere, abundant. Hale Moss, plentiful. Marshy meadows between Northen and the Red-brows. In the neighbourhood of Reddish Mills, plentiful. Mere Clough, abundant.

35. *C. RIPARIA*. CURT. Great Common Carex. E. B. 579.  
May. P.

Moist boggy places. Rare. Margin of Rosthern Mere, plentiful.  
Pit about half a mile west of Morley's Hall, Astley, plentiful.  
Again, about half a mile east of the above-mentioned Hall, but far  
more sparingly.

36. *C. FILIFORMIS*. M. Filiform Carex. E. B. 904. May. P.  
Bogs. Rare. On Brookhouse Moss, near Macclesfield.

37. *C. LIMOSA*. L. Green and Gold Carex. E. B. 2043. June.  
P.

Boggy places. Rare. On Brookhouse Moss, near Macclesfield.

#### ORDER. TETRANDRIA.

##### LITTORELLA. LINN. N. O. PLANTAGINEÆ.

1. *L. LACUSTRIS*. L. Plantain Shore-weed. E. B. 468. June.  
P.

Lindow Common. Baguley Moor.

##### ALNUS. TOURN. N. O. AMENTACEÆ.

1. *A. GLUTINOSA*. GAERTN. Common Alder. E. B. 1508.  
April. T.

Woods, sides of ponds, and damp situations. Common.

Is a well known timber tree, which will grow in marshy situations. The timber is applied to a variety of purposes, and in general for all works intended to be constantly under water, for turnery and furniture. The bark is used by dyers and tanners, the sap being of a yellow colour, and very astringent.—*Ency. Plants.* 780.

##### URTICA. LINN. N. O. URTICEÆ.

1. *U. URENS*. L. Small Nettle. E. B. 1236. Summer months.  
A.

Chorlton and Withington. Stretford. Prestwich. Many other places.

*U. urens*, with one or two others, are furnished with stings. The small projecting bristles, or prickles, with which they are covered, are tubular, and stand on a bag filled with a poisonous juice; they are perforated at the point, and when they are gently pressed vertically, the pressure at once forces the poison to ascend the tube, and enables the point to lodge it in the skin.

2. *U. DIOICA*. L. Common Nettle. E. B. 1750. July—  
August. P.

Woods, hedges, and waste places, everywhere.

The tops of the tender shoots of *U. dioica* are sometimes used as a pot-herb early in the spring, and they have even been forced for that purpose. A strong decoction of the plant, salted, will coagulate milk very readily, and without any disagreeable flavour. The stalk is found to have a texture somewhat like that of hemp, and to be capable of being manufactured into cloth, ropes, and paper. The leaves are the only food of the caterpillars of three of our most beautiful butterflies, *ARGYNNIS Paphia*, *VANESSA Atalanta* and *Urtica*, the principal food of the *Io*, and the occasional food of the *C. album*; the caterpillars, also, of the *POTYS urtica* and *MARGARITIA verticalis* moths feed on it. A great number of other indiscriminate feeders devour its foliage; and the bases of the leaves in autumn are frequently disfigured by tubercles, which contain small maggots, probably producing *Musca Urtica*. As a remedy for the sting of the nettle, its own juice, or that of the dock, may be applied.—*Ency. Plants*. 783. In the immediate vicinity of Manchester, the plant is becoming rather scarce, owing to the great demand for it in spring as a vegetable, to eat boiled, like spinach, or for making nettle beer, as a diet drink.

## ORDER. PENTANDRIA.

### AMARANTHUS. LINN. N. O. AMARANTHACEÆ.

1. A. BLITUM. L. Wild Amaranth. E. B. 2212. August. A.  
Garden weed near Prestwich. Park, Upper Brook-street.

### BRYONIA. LINN. N. O. CUCURBITACEÆ.

1. B. DIOICA. L. Red-berried Bryony. E. B. 439. May—June. P.  
Hedges, chiefly about houses and gardens. Probably planted.

*B. alba* and *dioica* differ in little else besides the colour of the berries, and by some are considered one species. Goats are the only quadrupeds said to eat this plant. The root grows to a vast size. Gerrard says, "The Queene's chiefe chirurgeon, Master William Goodorous, shewed me a roote heereof, that waied half an hundred waighte, and of the bignesse of a childe of a yeere old." To this Linnæus ascribes the quickness of its growth, though it springs late. The roots have been formerly, by impostors, brought into a human shape, carried about the country, and shown for mandrakes to the common people. The method which these people practised, was to open the earth round a young, thriving, Bryony plant, being careful not to disturb the lower fibres of the root; to fix a mould, such as is used by those who make plaster figures, close to the root, fastening it with wire to keep it in its proper situation, and then to fill in the earth about the root, leaving it to grow to the shape of the mould, which is effected in one summer. This root is a famous hydragogue, and highly purgative and acrid.—*Ency. Plants*. 810.

## ORDER. POLYANDRIA.

### CERATOPHYLLUM. LINN. N. O. CERATOPHYLLÆ.

1. C. DEMERSUM. L. Common Horn-wort. E. B. 947.  
August. P.  
Found in Worsley by Mr. W. Evans (Mr. J. Martin).



## MYRIOPHYLLUM. LINN. N. O. HALORAGEÆ.

1. *M. VERTICILLATUM*. L. Whorled Water-milfoil. E. B. 218.  
July—August. P.

Ditches and stagnant water. Not common. Pit in a field on the right side of the highway, beyond the Dog and Partridge, and about a mile from Stretford. Ditch by the side of the railway, between Old Trafford and Stretford. Pit near the bleach-works below Fitzgerald's coal-pits. Pond about a quarter of a mile south of Morley's Hall, Astley.

2. *M. SPICATUM*. L. Spiked Water-milfoil. E. B. 83. July—August. P.

Ponds and ditches. Very common. Pits about half a mile south of Withington Old Hall, abundant. Pits about half a mile south-east of the Independent College, Chorlton. Various other places in that neighbourhood, and about Stretford. Pond at Moston. Several places near Astley and Tyldesley.

3. *M. ALTERNIFLORUM*. D. C. Alternate-flowered Water-milfoil. June—August. P.

Ponds and ditches. Frequent. Pits on Baguley Moor, plentiful. Pits behind the Bull and Punch-bowl, near Stretford. Pond between Tetlow Bridge and Blakeley.

## SAGITTARIA. LINN. N. O. ALISMACEÆ.

1. *S. SAGITTIFOLIA*. L. Common Arrow-head. E. B. 84.  
July—August. P.

Pond near the toll-bar in the lane leading to Smedley Hall. Sparingly; undoubtedly introduced.

*S. sagittifolia*, so called from *sagitta*, an arrow, in reference to the arrow-headed form of the leaves, is one of the handsomest of British aquatics, and is common in Siberia, China, Japan, and Virginia. The bulb, which fixes itself in the solid earth, below the mud, constitutes an article of food among the Chinese, and upon that account they cultivate it extensively. The roots are larger in those countries than with us.—*Ency. Plants*. 791.

## ARUM. LINN. N. O. AROIDEÆ.

1. *A. MACULATUM*. L. Common Cuckoo-pint, or Wake-Robin. E. B. 1298. May. P.

Woods, groves, and hedges. Frequent. Cotterill Wood, abundant. Woods near Ringley and Clifton. Medlock Vale, Reddish Vale, and woods about Marple. Hedges near the river, between Barton and Irlam.

## QUERCUS. LINN. N. O. AMENTACEÆ.

1. *Q. PEDUNCULATA*. WILLD. *Q. ROBUR*. L. SM. Common Oak. E. B. 1342. May. T.

Woods and hedges, everywhere.

*Q. pendunculata* is thought to be the common oak of England, being much more frequent in natural woods than the others. The timber of this variety is said to be whitish and hard, while that of the sessile-fruited is reddish and brittle. The bark, and wood of all the hardy species of the oak, are or may be used by the tanner. Oak sawdust was formerly the principal indigenous vegetable used in dyeing fustian, and different shades of drab and brown are also made from it. Oak apples are used in dyeing, as a substitute for galls; the black got from them by the addition of copperas is more beautiful than that from galls, but not so durable. The galls are occasioned by an insect of the *Cynips* kind, which deposits its eggs in the substance of the leaf. When the bark of the oak has performed its office to the tanner, it is employed by the gardener to produce heat by its fermentation. Oak leaves are also used for the same purpose. When a great proportion of the island was in forest, acorns were of importance for feeding swine. They are still valued for this in districts where oak abounds, as in Hampshire and Northamptonshire, and other parts.—*Ency. Plants*. 795.

"Let India boast her plants, nor envy we  
The weeping amber and the balmy tree,  
While by our Oaks the precious loads are borne,  
And realms commanded which those trees adorn."

POPE.

2. *Q. INTERMEDIA*. DON. Intermediate Oak. Norwood Oak. E. B. 0. April—May. T.

Houghton Vale (Mr. J. Sidebotham).

3. *Q. SESSILIFLORA*. SALISB. Sessile-fruited Oak. Durmast Oak. E. B. 1845. T.

Woods and hedges. Frequent. Common about Clifton Aqueduct. Right Bank of the Irwell, at Agecroft Bridge. Staly Brushes, plentiful. Haughton Vale (Mr. J. Sidebotham).

## FAGUS. LINN. N. O. AMENTACEÆ.

1. *F. SYLVATICA*. L. Common Beech. E. B. 1846. May. T.  
Woods and hedges. Common; but planted.

*Fagus*, from the Greek, which also signifies eatable. Some suppose that mast was the original food of man. *F. sylvatica* is a handsome tree, in every stage of its growth. It seems to thrive best in a chalky clay, or loam, rather sheltered. It is one of the handsomest single-trees for parks, and is well adapted to form lofty hedges. The timber is brittle, and not of long duration; but is much used by turners, joiners, and millwrights. The bark is remarkably thin, and has been used for making baskets and band-boxes. The leaves are used in France by the country people, on account of their elastic quality, instead of straw, for the pailasse to lay under their mattresses. The mast is readily eaten by swine and deer.—*Ency. Plants*. 793.

"Where'er the rude and moss-grown Beech  
O'er-canopies the glade,  
Beside some water's rushy brink  
With me the Muse shall sit and think,  
(At ease reclined in rustic state)  
How vain the ardour of the crowd,  
How low, how little are the proud,  
How indigent the great."

GRAY.

## CASTANEA. TOURN. N. O. AMENTACEÆ.

1. C. VULGARIS. LAM. FAGUS CASTANEA. L. SM. Sweet Chesnut. May—June. T. E. B, 886.

Woods, parks, and plantations. Dunham Park, plentiful. Heaton Park.

Nothing will thrive under its shade. The wood is applicable to the same uses as the oak. If the bark is not taken off, it makes excellent poles for dead fences and hop yards. Some of the oldest buildings in London are said to be constructed with this wood. At Tortsworth, in Gloucestershire, is a tree, which was 46 feet 6 inches in girth, when Mr. Marsham measured it, in the year 1759. He calculated that it could not be much less, probably much more, than 1,100 years old, and that it was 540 years old when John came to the throne, and would then measure eleven yards round. The nuts are used for whitening linen, and for making starch. They are roasted on small stoves in the streets by the fruit women, and in winter form a very agreeable addition to our desserts.—W. 584.

## BETULA. LINN. N. O. AMENTACEÆ.

1. B. ALBA. L. Common Birch. E. B. 2198. May. T.

Hedges and plantations. Common.

It is liable to a disease in its branches, which causes it to send out a very great number of shoots in the middle of a branch, which, being grown to some length, at a distance much resemble a tree full of rooks' nests. The wood is firm, tough, and white. In the northern parts of Lancashire, the slender twigs are formed into besoms for exportation. The leaves afford a yellow dye. Torches are made of the bark, sliced and twisted together. It abounds with a resinous matter, that is highly inflammable. If a hole is bored into the tree when the sap rises in the spring, a sweet liquor distils from it, which, properly fermented, with sugar, makes a pleasant wine. Horses, cows, goats, and sheep, eat it; swine refuse it. It furnishes food to many kinds of moths. (The beautiful *Agaricus muscarius*, var. 4., seems to delight in the shade of the Birch tree.) W. 286.

var. *β. pendula*. ROTH.

Hedges and plantations. Not unfrequent.

## CARPINUS. LINN. N. O. AMENTACEÆ.

1. C. BETULUS. L. Common Hornbeam. E. B. 2032. May. T.

Plantations. Not very common.

## CORYLUS. LINN. N. O. AMENTACEÆ.

1. C. AVELLANA. L. Common Hazel. E. B. 723. April—May. T.

Woods and hedges. Common.

*Corylus*, from a bonnet; to which the enwrapping calyx may be very well compared. Our word hazel is in like manner derived from the Anglo-Saxon hæsel, which signifies a head-dress. *C. avellana* has the specific name from Avellino, a city of the kingdom of Naples, near which, in a valley, it grows to a great extent, and, in Swinburne's time, brought in an annual profit of near £12,000 sterling. The common hazel nut is wild in many woods and coppices in Britain, whence the fruit is gathered in plenty, and sent to the neighbouring markets. The fruit, when green, is often used for dyeing woollens.

As underwood, the plant is of some value for hoops, fishing-rods, walking-sticks, &c. Formerly, the roots were used by the cabinet-makers; and where yeast was scarce, they twisted the twigs, steeped them in ale during its fermentation, hung them up to dry, and when they brewed, put them into the wort.—*Ency. Plants.* 798. Goats and horses eat the leaves; sheep and swine refuse them. W. 505.

“Ye swains, now hasten to the hazel bank,  
Where down yon dale, the wildly-winding brook  
Falls hoarse from steep to steep. In close array,  
Fit for the thickets and the tangling shrub,  
Ye virgins, come. For you their latest song  
The woodlands raise; the clustering nuts for you  
The lover finds amid the secret shade;  
And, where they burnish on the topmost bough,  
With active vigour crushes down the tree,  
Or shakes them ripe from the resigning husk.”

THOMSON.

#### ORDER. MONADELPHIA.

#### PINUS. LINN. N. O. AMENTACEÆ.

1. *P. SYLVESTRIS*. L. Scotch Fir. E. B. 2460. May—June.  
T.

Woods, parks, and hedges. Common; but planted.

The trees which compose this species are not less remarkable for their grandeur and beauty, than for their valuable timber. They are all evergreens, and of lofty and erect growth. The trunk of the Scotch pine is more generally employed, and more universally applicable as timber, than any other tree in the temperate zone of the northern hemisphere. *P. sylvestris* is erroneously called a fir; and has the term Scotch applied to it, because it is the only species of the genus indigenous to Britain, and there only in the northern parts of Scotland. The timber of the Scotch pine is the red or yellow deal of the north of Europe, and is the most durable and valuable of any of the genus, unless we except, in the point of durability, the larch.—*Ency. Plants.* The bark will tan leather. The young shoots, distilled, afford a fragrant essential oil. Sheep and goats are not fond of it; horses refuse it.—*Linn.*

### CLASS. DIÆCIA.

#### ORDER. DIANDRIA.

#### SALIX. LINN. N. O. AMENTACEÆ.

1. *S. PENTANDRA*. L. Sweet Bay-leaved Willow. E. B. 1805.  
May—June. T.

Moist situations, as banks of rivers and ponds. Big Wood, near Staly Hall. Three Lane-ends, Chorlton. Gorton, by the side of the canal. Similar situation between Hatherlow and Marple Aqueduct, and many other places.

*Salix*. From the Celtic, near; and *lis*, water. Our common name, Osier, seems to be a slight alteration of the Greek, which means the same thing. This is a numerous and difficult genus of trees and shrubs, with one or two exceptions limited in their range to the temperate regions of Europe and America. Many of the species are distinguished by such delicate shades, that only the most acute botanists can recognise them. Soil, situation, and climate produce so considerable a change in their appearance, as to render it difficult to determine what are species and what varieties.—*Ency. Plants.* 821.

2. *S. FRAGILIS*. L. Crack Willow. E. B. 1807. April—May.  
T.

Woods, hedges, and banks of rivers. Common.

3. *S. RUSSELLIANA*. Sm. Bedford Willow. E. B. 1808. April—May. T.

On the right bank of the Tame, nearly opposite Arden Hall.

4. *S. TRIANDRIA*. L. Long-leaved Triandrous Willow. E. B. 1435. May—August. T.

Pit side near Marple Aqueduct. In a wood near the mouth of the tunnel, in that neighbourhood.

5. *S. ALBA*. L. Common White Willow. E. B. 2430. April—May. T.

River banks, moist woods, and hedges. Banks of the Mersey, near Sale. Right bank of the Tame, in Reddish Vale. Banks of the Bollin, near Dunham. Cotterill Wood. Various other places.

It loves a moist and open situation, grows quickly, and bears lopping. The wood is very white, and is therefore preferred for making milking pails and butter firkins. It is also used for flooring, for chests, and for boxes. It is light, tough, and pliable. The Rev. Mr. Stone, in the *Phil. Trans.*, v. liii. p. 195., gives us an account of the great efficacy of the bark of this tree in curing intermittent fevers. He gathers the bark in the summer, when it is full of sap, dries it by a gentle heat, and gives a drachm of it, powdered, every four hours, between the fits. In a few obstinate cases, he mixed it with one fifth part of Peruvian bark. It is remarkable, that intermittents are most prevalent in wet countries; and this tree grows naturally in such situations. This bark will tan leather. Horses, cows, sheep, and goats, eat the leaves and young shoots. Bees are very fond of the flowers.—*Linn.* W. 90.

“And are not the hazel and slender bine  
Blending their boughs where the sun doth shine?  
And the Willow is bringing its downy palm,  
Garland for days that are bright and calm.”

SAMUEL BAMFORD.

6. *S. HELIX*. L. Rose Willow. E. B. 1343. April. T.

Right bank of the Mersey near Carrington Ferry, sparingly. Wood on the left side of the road half way between Stockport and Marple, sparingly. Wood near Marple Aqueduct, on the left bank of the Goyt. Margin of a pond by the side of the canal, near Marple Aqueduct.

7. *S. VIMINALIS*. L. Common Osier. E. B. 1898. April—May. Sh.

Banks of rivers. Abundant. Banks of the Irwell, Mersey, and Tame.

The best willows for hoops and basket work are *S. viminalis*, *stipularis*, *rubra*, *Forbyana*, *triandra*, *mollissima*, and *vitellina*.—*Ency. Plants*. 823. Horses, cows, sheep, and goats, eat it.—*Linn.* In situations which the Osier affects, and in countries where the twigs are in demand, osier grounds have been known to pay an annual rent of ten pounds an acre. Under ordinary circumstances they will, if properly managed,

pay four or five. W. 89. The uses of the willow, including the Sallow and Osier, are thus minutely detailed by the venerable Evelyn :—"All kinds of basket work, for which our rude forefathers were in estimation at Rome."

"A barbarous basket, such as Britons frame,  
To Rome, the mistress of the world, I came :  
And Rome herself desired, when I was shown,  
To call the painted Britons' art her own !"

MARTIAL, Lib. xiv., Epig. 99.

And Juvenal also says,

"Bring in also the British baskets, a thousand dishes."

Sat. xii., v. 46.

8. *S. SMITHIANA*. WILLD. Silky-leaved Osier. E. B. 1509.  
April—May. Sh.

Moist situations and banks of rivers. Banks of the Mersey, between Northen and Stretford. By the side of Hough End brook, below Chorlton. Mere Clough, on each side of the reservoir. Plantations and hedges in various places. Plantation about a quarter of a mile from Jackson's Boat.

9. *S. CINERIA*. L. Grey Sallow. E. B. 1897. April. T.

Banks of rivers and moist woods. Common. Woods about Clifton and Ringley, near the river.

10. *S. AQUATICA*. SM. *S. CINEREA*, var.  $\beta$ . BAB. Water Sallow. E. B. 1437. April. T.

Wet or damp hedge rows, and boggy situations. Common. Mere Clough. Boggart-hole Clough. Hough End.

11. *S. OLEIFOLIA*. SM. *S. CINERA*, var.  $\gamma$ . *oleifolia*. BAB. Olive-leaved Sallow. E. B. 1402. April. T.

Similar situations to the preceding species.

The three species given above have no decided specific characters ; they appear to run one into the other, and are probably more correctly considered as varieties of each other.

12. *S. AURITA*. L. Round-eared, or Trailing Sallow. E. B. 1487. April—May. T.

Damp woods and bushy places. Very common. Frequent about Pilkington, Prestwich, Clifton, Blakeley, Middleton, and Clayton Vale.

13. *S. CAPREA*. L. Great Round-leaved Sallow. E. B. 1488. April—May. T.

Woods, thickets, and woody banks of rivers. Common. In the neighbourhood of Blakeley, Prestwich, Middleton, Clifton, and Ringley.

14. *S. ARGENTEA*. SM. *S. FUSCA*. L. var.  $\gamma$ . BAB. var.  $\zeta$ . Hook. Silky Sand Willow. E. B. 1364. April—May. Sh.

Baguley Moor. Lane on the site of Barlow Moor. Near Hough End. Greenfield. Remains of Sale Moor,

15. *S. REPENS*. L. *S. FUSCA*. L. var.  $\alpha$ . BAB. var.  $\beta$ . HOOK.  
Common Dwarf Willow. E. B. 183. May. Sh.

Remains of Baguley Moor, and road sides adjacent. Near Dean Church. Highfield Moss, Lowton.

The two last-named species may perhaps be varieties of *S. fusca*. L.

## ORDER. TRIANDRIA.

### EMPETRUM. LINN. N. O. EMPETREÆ.

1. *E. NIGRUM*. L. Black Crow-berry, or Crake-berry. E. B.  
526. May. Sh.

Hilly districts in the neighbourhood of Rochdale. Saddleworth. Staly Brushes. Astley side of Chat Moss. White Moss, near Blakeley.

The Highlanders' children eat the berries, but they are no very desirable fruit, and, taken in large quantities, are said to bring on a slight head-ache. The Russian peasants, however, eat them, and the Kamtschadales gather great quantities of them to boil with their fish, or to make a sort of pudding with the bulbs of their lilies. They are esteemed anti-scorbutic and diuretic. Grouse and heathcocks feed upon them. Boiled in alum water, they afford a dark purple dye; and boiled with fat, they are said to be used in dyeing otter and sable skins black. Cattle do not seem to browse on this shrub.—*Ency. Plants*. 828.

## ORDER. TETRANDRIA.

### VISCUM. LINN. N. O. LORANTHACEÆ.

1. *V. ALBUM*. L. Common White Mistletoe. E. B. 1470.  
March—May. P.

Parasitical upon apple trees. In the neighbourhood of Pilkington and Prestwich.

This may be considered the only true parasitical plant indigenous to Britain, as at no period of its existence does it derive any nourishment from the soil, like *Orobanche*, or from decayed bark or wood, like certain *Fungi*, or other epiphytes. The root of the mistletoe insinuates its fibres into the woody substance of the tree; the shoots are dichotomous, round, smooth, and even, and of a pale green, like the leaves, which are tongue shaped and entire. The whole forms a pendent bush of from two to five feet in diameter, evergreen, and in winter covered with small, white, glutinous berries. The British species of mistletoe is commonly found on fruit trees, but it will grow on various others, as the thorn, oak, maple, poplar, lime, ash, &c.—*Ency. Plants*. 830. This plant, which was held so sacred among the Druids, was believed by them to be possessed of efficacies almost divine, in consequence of which, when wanted, the cutting of it was attended with a great deal of unusual ceremony. The officiating priest was clothed in white, holding in his right hand a golden knife, with which he severed the plant from the tree on which it grew, at the time when the moon was six days old, when it was received on a white napkin, or cloth; after which were sacrificed two white bulls. When in this manner consecrated, it was used as an antidote to poison, and as a preventive against sterility. E.

## MYRICA. LINN. N. O. AMENTACEÆ.

1. M. GALE. L. Sweet Gale. Dutch Myrtle. E. B. 562.  
May. Sh.

Bog on the margin of Rosthern Mere, abundant. Unsworth Moss. Pitstead about a quarter of a mile north-west of Chorlton village. Borders of Chat Moss. Pitstead about half a mile south-east of the Manchester Independent College.

This plant is remarkable for its extreme fragrance.

*M. Gale* has leaves of a bitter taste, but fragrant, like those of the myrtle. Their essential oil is produced by distillation. The northern nations formerly used this plant instead of hops, and it is still in use for that purpose in some of the western isles, and a few places in the Highlands of Scotland. Unless it be boiled a long time, it is reported to occasion head-ache. The catkins, or cones, boiled in water, throw down a substance resembling bees' wax, which, gathered in sufficient quantities, would make candles. It is used to tan calf skins. Gathered in the autumn, it dyes wool yellow, and is used for that purpose both in Sweden and Wales. The Swedes sometimes use a strong decoction of it to kill bugs and lice, and to cure the itch. The Welsh lay branches of it upon and under their beds, to keep off fleas and moths. Linnæus was induced to suspect, from the smell of this plant, that camphor might be prepared from it. Horses and goats eat it; sheep and cows refuse it.

## ORDER. PENTANDRIA.

## HUMULUS. LINN. N. O. URTICEÆ.

1. H. LUPULUS. L. Common Hop. E. B. 427. July—August.  
P.

Hedges. Frequent. Medlock Vale. Near Blakeley. Hedges about Chorlton, frequent. Hedges near the right bank of the Irwell, near Eccles.

The hop plant was known to the Romans, being considered the *Tapulus Talictarius* of Pliny. It is found wild in many parts of Europe, and by Bieberstein among the bushes and hedges of the Caucasus. It is found in China, said to be wild in North America, and certainly a native of Britain. *Humalince*, or hop grounds, are mentioned in the ninth century, in Germany. In the thirteenth century, hops were introduced into the breweries of the Netherlands. Its culture is supposed to have been introduced into this country from Flanders, in the reign of Henry VIII. Both hops and Newcastle coals were petitioned against by the city of London; the former, "in regard they would spoyl the taste of drink, and endanger the people;" whence Henry VIII. issued an injunction, "not to put any hops, or brimstone, into the ale." Two varieties of the hop plant are particularly distinguished; one, cultivated near Canterbury, and in East Kent, of which both the plants and catkins are smaller; the latter ovate, about an inch and a half in length, of a pale, but yellowish, lively green, and of a fine, aromatic fragrance. The West Kent, or Sussex hop, grows to a much larger size, is considered hardier, and its catkins are about two and a half, sometimes four, inches in length, but do not bring so high a price in the market as the East Kent hops. The inflorescence is succeeded by an egg-shaped catkin, or cone, of leafy, imbricated scales, which is the fruit of the plant. Each scale contains near its base a black seed, or achenium, which is surrounded by many minute, roundish, yellow, cellular, aromatic glands. The bitter taste and aroma of hops in a great measure resides, as Sir Jas. Smith first pointed out, in the glandular grains which surround the seeds; and D. Ives, of New York, showed that to them, also, hops owe whatever medicinal virtues they may possess. As these grains are easily detached by thrashing, rubbing, and sifting the dried catkins, they ought to be substituted for the hops themselves, as the best form for medicinal purposes. In this state they constitute a coarse, yellowish powder, to which the name of *Lupulin* has been applied, though incorrectly, since it



is by no means a pure principle. It constitutes about, or nearly, a sixth part of hops, when they are gathered in the proper season; 21lbs. having been obtained from 156lbs. of hops. Some uncertainty exists as to the action of hops. They are commonly stated to be tonic, febrifuge, anthelmintic, antilithic, and hyperotic.

## ORDER. HEXANDRIA.

### TAMUS. LINN. N. O. TAMEÆ.

1. T. COMMUNIS. L. Common Black Bryony. E. B. 91. July—August. P.

Cotterill Clough, plentiful. Also woods in that neighbourhood. Hedges near the "Noggin" public-house, Culcheth, plentiful.

*T. communis* has very large, tuberous, black, coated masses attached to its roots. These are so acrid, that the pulp has been formerly used as a stimulating plaster. The young shoots, however, are so mild as to be good eating when dressed as asparagus. The Moors eat them with oil and salt.—*Ency. Plants*. 838. Horses will not eat this plant.—*Linn*.

## ORDER. OCTANDRIA.

### POPULUS. LINN. N. O. AMENTACEÆ.

1. P. ALBA. L. White Poplar. Abele Tree. E. B. 1618. April. T.

Hedges and plantations. Frequent. Not truly wild.

- *P. alba* is one of the most valuable of the British species. It grows quickly, and bears cropping, but is unfavourable to pasturage. The wood is soft, white, and stringy, and makes good wainscoating, being but little subject to swell or shrink. Floors, laths, packing boxes, and turners' ware are made of it. Horses, sheep, and goats, eat it; cows are not fond of it. W. 501.

2. P. CANESCENS. SM. Grey Poplar. E. B. 1619. April. T.

Damp situations. Field on the left bank of the Tame, between Arden Mill and Bredbury Wood (Mr. J. Sidebotham). Bedford, near Leigh.

3. P. TREMULA. L. Aspen, or Trembling Poplar. E. B. 1909. March. T.

Moist woods and hedges. Not unfrequent. Hedges near the left bank of the Irwell, between Clifton Aqueduct and Agecroft Bridge. About Withington. Left bank of the Irwell, at Agecroft Bridge. Haughton Vale. About Leigh. In the two last situations it has some appearance of being truly wild.

*P. tremula* is a rapid-growing tree, in almost any soil or situation; but the numerous shoots of the roots spread so near the surface that they will not permit anything else to grow there. The wood is extremely light, white, smooth, soft, and durable in the air. It may be used for the same purposes as that of the *alba*. The bark is the favourite food of beavers. On the leaves and leaf stalks may sometimes be seen red glandular substances, about the size of a pea, which are the nests of *Tipula juniper*.—*Ency. Plants*. 840. Sheep and goats eat it; horses and swine refuse it.—*Linn*.

4. *P. NIGRA*. L. Black Poplar. E. B. 1910. April. T.

Hedges. Frequent. Hedges in Lower Broughton, near the river. Hedges about Stretford and Chorlton, plentiful. About Worsley, plentiful.

*P. nigra* has a naked trunk, covered with an ash-coloured bark, and a regular, handsome head. It is a tree of quick growth, and on the banks of rivers, and in moist situations, it grows up to a great height in a short time. The bark is light, like cork, and is sometimes used by fishermen to float their nets. The timber is light and soft, fit for the turner and patten-maker, and excellent for flooring boards. These boards are slower in taking fire than those of resinous trees; they smoke a long time before they burst into a flame. Of course the wood is bad for fuel.—*Ency. Plants*. 840. The red substances, like berries, upon the leaf-stalks, as large as a cherry, bulging on one side, and gaping on the other, are occasioned by an insect, called the *Aphis Bursaria*. Horses, cows, sheep, and goats, eat it.—*Linn*.

## ORDER. ENNEANDRIA.

## MERCURIALIS. LINN. N. O. EUPHORBIACEÆ.

1. *M. PERENNIS*. L. Perennial Dog's Mercury. E. B. 1872. March—May. P.

Woods, hedges, and shady places. Abundant.

*M. perennis* is not eaten by any quadruped, and is poisonous to men and sheep. The plant, on being dried, turns blue; and, steeped in water, it affords a fine deep blue colour, destructible, however, both by acids and alkalies. It has been observed, that the male and female plants are seldom found intermixed, each sort usually growing in large patches; whence it is probable that this plant, which increases so much by the root, rarely produces ripe seeds.—*Ency. Plants*. 843.

## HYDROCHARIS. LINN. N. O. HYDROCHARIDÆÆ.

1. *H. MORSUS-RANÆ*. L. Common Frogbit. E. B. 808. June—August. P.

Pits and ditches about Tyldesley, Astley, and Bedford, abundant. Originally introduced by Mr. J. Martin.

This little plant is one of the prettiest ornaments of still waters. It increases by runners, which shoot out to a great length, and at the joints drop down long roots, which penetrate deep into the mud. The joints are furnished with pendulous buds, supported on long footstalks. The buds consist of two stipulaceous scales, folded together, within which are curiously enveloped the embryo leaves of the future plant.—*Ency. Plants*. 842.

## ORDER. MONADELPHIA.

## TAXUS. LINN. N. O. CONIFERÆ.

1. *T. BACCATA*. L. Common Yew. E. B. 746. March. T.

In the neighbourhood of old halls, church-yards, &c.; but planted.

"Beneath those rugged elms, that yew tree's shade,  
Where heaves the turf in many a mouldering heap,  
Each in his narrow cell for ever laid,  
The rude forefathers of the hamlet sleep."

GRAY.

## CLASS. POLYGAMIA.

## ORDER. MONŒCIA.

## ATRIPLEX. LINN. N. O. CHENOPODEÆ.

1. A. PATULA. L. Spreading Halberd-leaved Orache. Fat Hen.  
E. B. 936. July. A.

Waste and cultivated ground. Abundant.

It is sometimes gathered as a pot-herb, and eaten in lieu of spinach and other greens. Cows, goats, sheep, and swine eat it, but do not seem to be fond of it. W. 373.

## CLASS. CRYPTOGRAMIA.

## N. O. FILICES.\*

## ALLOSORUS. BERNH.

1. A. CRISPUS. BERNH. PTERIS CRISPA. L. SM. CRYPTOGRAMMA CRISPA. HOOK. Curled, or Rock-brake. Mountain Parsley. E. B. 1160. July—August. P.

Fall Edge, or Fo Edge, abundant. At a place called Reddenshore, on the side of Rooley Moor, about four miles from Rochdale, plentiful.

\* The uses of the *Filices* are but little known; few of them are esculent. They have a disagreeable heavy smell. In large doses they destroy worms, and some of them are purgative. The ashes produced by a slow incineration of the green plants contain a considerable portion of vegetable alkali, and in this kingdom are very generally sold under the name of ash-balls, to make lye for scouring linen. W. In hot-houses they become evergreens, and their beauty is greatly improved in colour and delicacy. The leaves, if cut down when fully grown, and properly dried, make a thatch more durable than that of any kind of straw. In most of the genera of the second subdivision, the seedling plants require a succession of seasons before they produce their fructification. The first year, a single leaf is produced, which seldom attains to more than an inch in height, is thin, semi-transparent, and most commonly entire. The second year, two or three are produced, one larger than the other. The third year, four or five are produced; and the fourth year, more in number, proportionable to the richness of the soil, and the suitableness of the situation. In most fertile soils, shaded situations, mossy dripping rocks, or near currents or rills of spring water, the leaves are thin, light, and semi-transparent, larger and more numerous, and apt to become monstrous in shape or size. On dry rocks, and in barren soils exposed to air and sun, the leaves are few, short, firm, and opaque, producing seeds in fewer years from the first springing up; and they generally retain their own proper figure.—*Bolton*.

## POLYPODIUM. LINN.

1. *P. VULGARE*. L. Common Polypody. E. B. 1149. August—September. P.

Rocks, walls, and under hedges and trees. Frequent. About Hough End. On hedge banks in Barlow lane. On a ditch bank about half a mile east of Sale Bridge, very plentiful. In the last mentioned station the variety *aceutum* is found, though sparingly.

*P. vulgare* is sometimes burnt for the sake of its ashes, which contain a large proportion of carbonate of potash, which is employed in the fusion of flint for some kinds of glass ware.—*Ency. Plants*. 880.

2. *P. PHEGopteris*. L. Pale Mountain Polypody. Beech Fern. E. B. 2224. July—September. P.

Shady woods, in many places. Wickin-hole Clough, near Shaw Chapel. Stirrup Wood, near Mottram. Dan-bank Wood, near Marple. Bamford Wood, near Heywood. Dean Church Clough. Woods near the residence of Mark Phillips, Esq., Pilkington, plentiful. Mere Clough. Boggart-hole Clough. Hollins Clough, near Staly Brushes. Early-banks Wood, near Staly Bridge. Bardsley Wood. In a dingle about half a mile north-east of Ashworth Chapel. Near the Heywood new reservoir, in great abundance.

3. *P. DRYopteris*. L. Tender Three-branched Polypody. Oak Fern. E. B. 616. July—September. P.

Boggart-hole Clough. Seal Bark, Greenfield. Dean Church Clough. Arncliffe Wood, near Compstall Bridge, Cheshire. Stirrup Wood, near Mottram (Mr. J. Tinker). Bamford Wood. Dingle near Ashworth Chapel, very plentiful. Rocks by the side of a brook at Bradley Wharf, below Mere Clough. Bredbury Wood (Mr. J. Sidebotham). Smethurst Bottoms, near Bury. Bardsley Clough.

## LASTRÆA. PRESL.

1. *L. THElypteris*. PRESL. *POLYPODIUM THElypteris*. L. *ASPIDIUM THElypteris*. SM. HOOK. Marsh Shield Fern. E. B. 1018. July—August. P.

Knutsford Moor (Mr. W. Wilson). Margin of Rosthern Mere.

2. *L. OREopteris*. PRESL. *ASPIDIUM OREopteris*. SM. HOOK. Heath Shield Fern. Sweet Mountain Fern. E. B. 1019. July—August. P.

Woods, ditch banks, heathy situations, and rough pastures. Common. Boggart-hole and Mere Cloughs. Kersal Moor. About Chorlton and Withington, common. Arncliffe Wood, near Compstall Bridge, Cheshire. Rough sloping pastures on the left bank of the Goyt, about half way between Stockport and Marple Aqueduct, in great profusion.

3. *L. FILIX-MAS.* PRESL. *POLYPODIUM FILIX-MAS.* L. *ASPIDIUM FILIX-MAS.* SM. HOOK. Male Fern. E. B. 1458. August. P.

Woods and rough shady places. Very common.

4. *L. DILATATA.* PRESL. *ASPIDIUM DILATATUM.* SM. HOOK. Broad Sharp-toothed Shield Fern. E. B. 1461. August. P.

Damp woods, shady hedges, banks, and old pitsteads. Plentiful.

5. *L. SPINULOSA.* PRESL. *ASPIDIUM SPINULOSUM.* SM. A. *DILUTATUM*, var. *β. spinulosum.* HOOK. Prickly-toothed Shield Fern. E. B. 1460. August. P.

Moist woods, shady ditch banks, and old pitsteads. Old pitstead at Levenshulme. Ditch banks near Carrington Moss. Big Wood, near Staly Hall, abundant.

### POLYSTICHUM. ROTH.

1. *P. LOBATUM.* SM. HOOK. Close-leaved Shield Fern. E. B. 1563. July—August. P.

Ashworth and Bamford Woods, plentiful. Cotterill Wood, and its neighbourhood, plentiful. Stirrup Wood, near Mottram. Woods in Marple Vale. Bredbury Wood. Various other places.

var. *β. lonchitidoides.* HOOK. E. B. 1563.

In the same situations as the above species, of which it is merely the young state.

2. *P. ACULEATUM.* ROTH. *POLYPODIUM ACULEATUM.* L. *ASPIDIUM ACULEATUM.* SM. HOOK. Common Prickly Shield Fern. E. B. 1562. August. P.

Cotterill Wood. Bamford Wood, near Heywood. Stirrup Wood, between Mottram and Compstall Bridge. Rocky dingle near Marple Bridge.

This and the preceding species do not seem to be really distinct from each other, as intermediate forms are frequently to be met with. In *P. lobatum* the frond is linear-lanceolate, and pinnate; pinnae deeply pinnatifid. In *P. aculeatum* the frond is lanceolate and bipinnate, with the pinules distinctly pedicellate. These distinctive characters in this species are usually attributed to age and luxuriant growth. The plant usually grows to the length of three feet, though I have met with plants possessing all the characters belonging to the species, whose fronds were not more than six or eight inches in length.

3. *P. ANGULARE.* ROTH. *P. ACULEATUM*, var. *β. angulare.* BAB. *ASPIDIUM ANGULARE.* SM. HOOK. Angular-leaved Shield Fern. E. B. S. 2776. August. P.

Marple Wood. Warren Wood, half way between Stockport and Marple, plentiful.

## CYSTOPTERIS. BERNH.

1. *C. FRAGILIS*. BERNH. var.  $\beta$ . *POLYPODIUM FRAGILE*. L. *CYSTEA FRAGILIS*. SM. Brittle Bladder Fern. E. B. 1587. August. P.

Wall of Rosthern Church.

var.  $\alpha$ . *dentata*. *CYSTEA DENTATA*. SM. *CYSTOPTERIS DENTATA*. HOOK. Toothed Bladder Fern. E. B. 1588. August. P.

Seal Bark, Greenfield. Bamford Wood, sparingly.

## ATHYRIUM. ROTH.

1. *A. FILIX-FÆMINA*. ROTH. *POLYPODIUM FILIX-FÆMINA*. L. *ARPIDIUM FILIX-FÆMINA*. SM. *ASPLENIUM FILIX-FÆMINA*. HOOK. Female, or Lady Fern. E. B. 1459. August. P.

Moist shady places, woods, &c., abundant.

The Siberians boil it in ale, and are fond of the flavour which it imparts.

var.  $\beta$ . *irriguum*. *ASPIDIUM IRRIGUUM*. SM. *ASPLENIUM FILIX-FÆMINA*, var.  $\beta$ . *irriguum*. HOOK. Brook Shield Fern. E. B. 2199. August. P.

Rocky banks of the Irwell, near Clifton Aqueduct; and other places.

## ASPLENIUM. LINN.

1. *A. RUTA-MURARIA*. L. Wall Rue Spleen-wort. E. B. 150. August. P.

Yard wall of Hough End Hall. Farm-yard wall in Pilkington. Bridge over the river Irk, opposite Alkington Hall. Old wall opposite to the park wall, Dunham. Old barn wall, Gorton lane. Bridge over the river Etherow, about two miles from Mottram. Garden wall in front of Chaddock Hall, Tyldesley. Marple Hall.

2. *A. TRICHOMANES*. L. Common Maiden-hair Spleen-wort. E. B. 576. August. P.

Seal Bark, Greenfield. Bamford Wood, sparingly. Below Rivington Pike.

3. *A. ADIANTUM-NIGRUM*. L. Black Maiden-hair Spleen-wort. E. B. 1950. August. P.

Draw-well at Tyldesley (Mr. J. Martin).

I formerly saw it growing in an old wall adjoining to Sale Bridge, about thirty years since. When this wall was partially taken down, the plant disappeared for six or seven years, and then came again, and continued there for a few years, when it disappeared a second time, probably by being too freely gathered, and is not now to be met with.

## SCOLOPENDRIUM. SM.

1. *S. VULGARE*. SM. *ASPLENIUM SCOLOPENDRIUM*. L. Hart's Tongue. E. B. 1150. August. P.

Cotterill Wood. Marple Wood. Dingle near Marple Bridge. Dingle near the bridge over the Bollin, below Dunham Park. Stirrup Wood.

## BLECHNUM. LINN.

1. *B. BOREALE*. SW. *OSMUNDA SPICANT*. L. Northern Hard Fern. E. B. 1159. August. P.

Woods, heaths, and ditch banks, especially in a turfy soil. Very common.

## PTERIS. LINN.

1. *P. AQUILINA*. L. Common Brakes. E. B. 1679. August. P.

Woods and heaths. Everywhere.

A tolerably pure alkali may be obtained from the ashes.

## HYMENOPHYLLUM. SM.

1. *H. TUNBRIDGENSE*. SM. *TRICHOMANES TUNBRIDGENSI*. L. Tunbridge Filmy Fern. E. B. 162. August. P.

Caves at Greenfield. Very sparingly.

2. *H. WILSONI*. Wilson's Filmy Fern. E. B. S. 2686. August. P.

Caves at Greenfield, sparingly.

## OSMUNDA. LINN.

1. *O. REGALIS*. L. Osmund Royal. Flowering, or St. John's Fern. E. B. 209. August. P.

Margin of Rosthern Mere. Heaton Park, plentiful. Chat Moss. Hale Moss. About Timperley. Ditch banks near Carrington Moss. Several places about Tyldesley. Holts' Rough, near Tandle Hill, near Middleton. Offerton Rough, near Stockport.

## BOTRYCHIUM. SW.

1. *B. LUNARIA*. SW. *OSMUNDA LUNARIA*. L. Moon-wort. E. B. 318. August. P.

Dry mountain or hilly pastures. Pastures at Saddleworth. Hilly pastures near Mottram. Near Reddish Mill. Meadow in Middle Hulton, about three miles north of Tyldesley. Not unfrequent in the hilly districts.

## OPHIOGLOSSUM. LINN.

1. *O. VULGATUM*. L. Common Ovate Adder's-tongue. E. B. 108. June. P.

Moist meadows and pastures, especially near the banks of rivers. Sloping meadow above Reddish Mill. Meadows in Reddish Vale, nearly opposite Arden Hall. Meadows on the right bank of the Irwell, near Eccles. Meadow on the left bank of the Mersey, about a quarter of a mile above Jackson's Boat. Meadow near Hope Square, Prestwich. Field adjoining Clayton domain, in Clayton Vale.

## LYCOPODIUM. LINN. N. O. LYCOPODIACEÆ.

1. *L. CLAVATUM*. L. Common Club Moss, or Wolf's-claw. E. B. 224. July—August. P.

Fo or Fall Edge. Seal Bark, Greenfield. Not unfrequent in the mountainous districts. Field above Stirrup Wood, near Mottram. Boggart-hole Clough, sparingly. Field at Pilsworth, near Pilkington.

In Sweden, this plant is formed into mats, which lie at the doors of houses, to clean shoes upon. It restores ropy wine in a few days. The seeds flash when thrown into a flame, and it is said are used in the theatres to imitate lightning. They are with difficulty wet; and, if scattered upon a basin of water, the hand may be dipped to the bottom of the basin without wetting it. W. 984.

2. *L. ALPINUM*. L. Savin-leaved Club Moss. E. B. 234. August. P.

Fo or Fall Edge. Greenfield.

3. *L. SELAGO*. L. Fir Club Moss. E. B. 233. June—August. P.

Fo or Fall Edge. Seal Bark, Greenfield.

It purges, vomits, and destroys worms. A decoction of it is said to be a cure for lice in swine and cattle.—Linn.

## PILULARIA. LINN. N. O. MARSILIACEÆ.

1. *P. GLOBULIFERA*. L. Creeping Pill-wort. Pepper-grass. E. B. 521. P.

This plant was formerly found in shallow pits on Baguley Moor, previous to the inclosing of that place for the purposes of cultivation; and it is highly probable that it still exists in the small portion which remains yet undisturbed.

## EQUISETUM. LINN. N. O. EQUISETACEÆ.

1. *E. TELMATEIA*. EHRH. *E. FLUVIATILE*. L. SM. HOOK. Great Water Horse-tail. E. B. 2022. April. P.

Soft muddy places, especially in woods. Woods in Reddish Vale, abundant. Mere Clough. Boggart-hole Clough. Red Brows, near Didsbury. Nearly all the swampy woods about Manchester.



2. *E. FLUVIATILE*. EHRH. *E. LIMOSUM*. L. SM. HOOK.  
Smooth Naked Horse-tail. E. B. 929. June—July. P.

Marshy places, in old pits, and ditches. Common.

3. *E. PALUSTRE*. L. Marsh Horse-tail. E. B. 2021. June—  
July. P.

Stations similar to those of the preceding species. Common.

4. *E. ARVENSE*. L. Corn Horse-tail. E. B. 2020. April. P.  
Corn fields, ditch banks, and way-sides. Common.

5. *E. SYLVATICUM*. L. Branched Wood Horse-tail. E. B. 1874.  
April—May. P.

Moist shady woods, and hedge banks. Frequent. Mere Clough,  
abundant. Woods in Marple and Reddish Vales, common.  
Boggart-hole Clough. Various other places.

The anthers are fixed to filaments, which, on being breathed upon, coil up; but in a moment, becoming dry, they expand again. After several expansions and contractions, they detach themselves, still contracting when moistened, gradually bending from a straight line into a circle. If a drop of water be pushed towards them, they contract before it touches them. These contractions are often so sudden as to throw the object out of the field of view. W. 979.

“ Like leaves on trees, the race of man is found,  
Now green in youth, now withering on the ground.  
Another race the following spring supplies;  
They fall successive, and successive rise:  
So generations in their course decay;  
So flourish these, when those are passed away.”

Pope's "Homer."

## MUSCI.\*

### DIVISION I. SCHISTOCARPI.

#### 1. ANDRÆA.

1. A. RUPESTRIS. Fr. Autumn.  
Greenfield.

2. A. ROTHII. Fr. Autumn.  
Greenfield.

### DIVISION II. ASTOMI.

#### 2. PHASCUM.

1. P. SUBULATUM. Fr. Spring.  
Dry banks. Not uncommon. Near Pilkington and Blakeley.

2. P. AXILLARE. Fr. Spring.  
Moist banks, and on the ground. Near Eccles, Stretford, and Moston.

3. P. MUTICUM. Fr. Autumn.  
Moist banks. Not common. Near Blakeley.

4. P. CUSPIDATUM. Fr. Spring.  
Hedges, fields, and moist banks. Near Hough End and Broughton.

### DIVISION III. GYMNOSTOMI.

#### 3. SPHAGNUM.

1. S. OBTUSIFOLIUM. Fr. June—July.  
Spongy bogs, stagnant ponds, and ditches.

2. S. SQUARROSUM. Fr. June—July.  
Boggy places. Common.

\* I have adopted the arrangement and nomenclature of the Mosses from Sir William Hooker's second edition of *Muscologia Britannica*.

3. *S. ACUTIFOLIUM*. Fr. Summer.  
Pitsteads and mosses. Very common.
4. *S. CUSPIDATUM*. Fr. Summer.  
Spongy bogs and mosses. Common.
5. *S. CONTORTUM*. Fr. Summer.  
Boggy places. Rooley Moor, near Rochdale.
6. *S. FIMBRIATUM*. Fr. Summer.  
In the same situations as the preceding.

#### 4. GYMNOSTOMUM.

1. *G. RUPESTRE*. Fr. November.  
Wet rocks in Bamford Wood. Abundant.
2. *G. TRUNCATULUM*. Fr. Autumn.  
On walls, banks, and in stubble fields.  
*var. intermedium*. Fr. Autumn.  
On a wall by the canal near Hatherlow, Cheshire.
3. *G. OVATUM*. Fr. Autumn.  
On a wall by the canal near Disley, plentiful (Mr. J. Sidebotham).
4. *G. PYRIFORME*. Fr. May.  
Wet banks and sides of ditches. Not frequent. On the wall of Hough End Hall. Rocks on the left bank of the Irwell, opposite the new race ground.
5. *G. TENUE*.  
Rocks and walls. Rare. On the side of the canal bridge at Lymm, and on an old wall at Timperley, Cheshire (Mr. W. Wilson).
6. *G. MICROSTOMUM*. Fr. Spring.  
Moist clay banks. Bottom of Black Clough, near Kersal Moor.
7. *G. FASCICULARE*. Fr. Spring.  
Moist banks at Greenfield.

#### 5. SCHISTOSTEGA.

1. *S. PENNATA*. Fr. Spring.  
Rare. Caverns and fissures of rocks on Alderley Edge. Hampson-lane. Stirrup Brook, Tyldesley (Mr. J. Martin).

## DIVISION IV. PERISTOMI.

## 6. DIPHYSCIUM.

1. *D. FOLIOSUM*. Fr. Spring.  
Greenfield (Mr. E. Hobson).

## 7. TETRAPHIS.

1. *T. PELLUCIDA*. Fr. October.  
Rotten wood and trunks of trees. Extremely common; fructifying somewhat freely on Alderley Edge, but rarely in other places.
2. *T. BROWNIANA*. Fr. May.  
Caves, and fissures of rocks. Rare. Alderley Edge. Valley of the Dean rivulet, Rooley Moor, near Rochdale.

## 8. SPLACHNUM.

1. *S. MNIOIDES*. Fr. June.  
Moors and mosses. Greenfield. Chat Moss.
2. *S. AMPULLACEUM*. Fr. June.  
Moors and mosses. White Moss, near Blakeley.

## 9. POLYTRICHUM.

1. *P. UNDULATUM*. Fr. Autumn.  
Woods, and shady banks. Abundant.
2. *P. HERCYNICUM*. Fr. May.  
On the ground and on moist banks in hilly situations. Valley of the Dean, near Rooley Moor. About three miles beyond Shaw Chapel.
3. *P. PILEFERUM*. Fr. Spring.  
Heaths, moors, and waste places. Common.
4. *P. JUNIPERINUM*. Fr. Spring.  
Heaths and moors. Not unfrequent. Alderley Edge and Lindow Common, plentiful.
5. *P. COMMUNE*. Fr. May.  
Boggy places on heaths and moors. Abundant.

6. *P. GRACILE*. Fr. May.

Heaths, moors, and boggy places. Carrington, Clifton, and Chat Mosses. Pitstead near Withington Hall, abundant.

7. *P. ALPINUM*. Fr. May.

Fo or Fall Edge.

8. *P. URNIGERUM*. Fr. Autumn.

Banks. Frequent. Alderley Edge, plentiful.

9. *P. ALOIDES*. Fr. Winter.

Moist banks. Common.

var.  $\beta$ . *Dicksoni*.

Near Prestwich.

10. *P. NANUM*. Fr. Spring.

Moist banks. Rare. Reddish Vale, sparingly. Near Ringway.

## 10. CINCLIDOTUS.

1. *C. FONTINALOIDES*. Fr. Spring.

Rocks and stones in the river Goyt, near Marple Aqueduct.

## 11. TORTULA.

1. *T. RIGIDA*. Fr. Spring.

Plentiful on the canal walls at Marple Aqueduct.

2. *T. CONVOLUTA*. Fr. Spring.

Walls and banks. Frequent; in the same situations as the preceding.

3. *T. REVOLUTA*. Fr. Spring.

On walls. Yard wall of Hough End Hall, Near Clifton Aqueduct.

4. *T. MURALIS*. Fr. Spring.

Walls and rocks. Everywhere.

5. *T. RURALIS*. Fr. Spring.

Walls of the canal, near Marple.

6. *T. SUBULATA*. Fr. May.

Hedge banks. Plentiful. Near Hough End. Marple Aqueduct.

7. *T. UNGUICULATA*. Fr. Spring.

Banks, and on the ground. Not unfrequent.

8. *T. TORTUOSA*. Fr. May.

Rocks and walls. Greenfield.

9. *T. FALLAX*. Fr. Spring.

Walls, banks, and on the ground. Frequent.

12. *ENCALYPTA*.1. *E. STREPTOCARPA*. Fr. Spring.

Rocks and walls at Greenfield.

13. *GRIMMIA*.1. *G. APOCARPA*. Fr. Autumn.

Rocks and walls in the hilly districts. Plentiful near Marple.

2. *G. PULVINATA*. Fr. Spring.

Rocks and walls in hilly situations. Common.

3. *G. DONIANA*. Fr. Autumn.

Rocks and walls near Charlesworth.

14. *WEISSIA*.1. *W. CRISPULA*. Fr. May.

Near Rochdale (Mr. E. Hobson).

2. *W. TEMPLETONII*. Fr. June.

Rocks on the left bank of the Irwell, near Clifton Aqueduct.

3. *W. NUDA*. Fr. April—May.

Clay banks. Not unfrequent. On the broken brow between Pilkington and Radcliffe, abundant. Bank side in Staly Brushes, plentiful. Bamford Wood, abundant.

4. *W. LANCEOLATA*. Fr. April.

Canal wall near Hyde, sparingly. Canal wall between Hatherlow and Marple, plentiful (Mr. J. Sidebotham).

5. *W. TRICHODES*. Fr. Autumn.

Rocks in the rivulet at Greenfield.

6. *W. CIRRATA*. Fr. Spring.

Roofs, walls, rails, and trunks of trees. Common on trees about Chorlton. Stone wall below the canal near Stretford. Rail at the bottom of Cotterill Wood.

7. **W. CURVIROSTRA.** Fr. Autumn and Winter.  
Banks and walls. Abundant. On the walls of the canal near Marple.
8. **W. CONTROVERSA.** Fr. Spring.  
Hedges and banks. Abundant.
9. **W. RECURVATA.** Fr. April.  
Rocks and stones in the rivulet in Ashworth Wood.

15. **DICRANUM.**

1. **D. BRYOIDES.** Fr. Winter and Spring.  
Moist banks and woods. Abundant.
2. **D. ADIANTOIDES.** Fr. Winter and Spring.  
Moist banks and wet places. Bottom of Mere Clough. Early Banks Wood, near Staly Bridge.
3. **D. TAXIFOLIUM.** Fr. Winter and Spring.  
Wet hedge banks and woods. Frequent.
4. **D. GLAUCUM.**  
Boggy and heathy places. Staly Brushes, plentiful. Hale Moss.
5. **D. CERVICULATUM.** Fr. Spring.  
Bogs and moist places on all the mosses about Manchester.
6. **D. FLEXUOSUM.** Fr. Spring.  
On the ground, and on hedge banks, plentiful.  
*var. β. nigro viride.* Fr. Spring.  
Rocks and walls. Alderley Edge.
7. **D. SCHREBERIANUM.**  
On the broken brow, near Radcliffe, sparingly. At Irlam (W. Wilson, Esq.).
8. **D. FLAVESCENS.** Fr. Winter and Spring.  
Bamford Wood.
9. **D. SQUARROSUM.** Fr. Spring.  
Boggy situations in the hilly districts. Staly Brushes. Ashworth Wood, plentiful.
10. **D. PELLUCIDUM.** Fr. Autumn and Winter.  
Sides of brooks and rivers. Frequent. Clifton Aqueduct. Bamford Wood.

11. *D. CRISPUM*. Fr. Autumn.  
Broken brow, near Radcliffe.
12. *D. UNDULATUM*. Fr. Spring.  
Woods and hedge banks. Near Ringway.
13. *D. MAJUS*. Fr. Spring.  
Woods and hedge banks in hilly districts.
14. *D. DELENEI*. Fr. Spring.  
Same situations as the preceding.  
var. *β. fuscens*. Fr. Autumn and Winter.  
Greenfield.
15. *D. VARIUM*. Fr. Winter and Spring.  
Moist banks. Abundant.
16. *D. RUFESCENS*. Fr. Winter and Spring.  
Along with the preceding.
17. *D. HETEROMALLUM*. Fr. Winter and Spring.  
Moist banks. Abundant.
18. *D. SUBULATUM*. Fr. Autumn.  
Moist banks. Staly Brushes. Broken brow, near Radcliffe.

#### 16. TRICHOSTOMUM.

1. *T. LANUGINOSUM*. Fr. Autumn and Winter.  
Rocks and stones in the hilly districts. Greenfield. Charlesworth.
2. *T. CANESCENS*, var. *β. ericoides* Fr. Spring.  
Alderley Edge. Three miles beyond Shaw Chapel.
3. *T. ACICULARE*. Fr. Winter and Spring.  
Near Charlesworth Coombs. Staly Brushes.
4. *T. FASCICULARE*. Fr. Winter and Spring.  
Rocks and stones in running streams. Plentiful at Greenfield.  
Staly Brushes. Ashworth Wood.
5. *T. POLYPHYLLUM*. Fr. Spring.  
Rocks and stone walls. Heaton Park wall.

#### 17. DIDYMODON.

1. *D. PURPUREUS*. Fr. Spring.  
On the ground, and moist banks. Everywhere.



2. **D. FLEXIFOLIUM.** Fr. May.

On the ground, and on roofs, in various places. On the ground at Alderley Edge, in fruit. On the roof of a stable at the foot of Alderley Edge. On the roof of a barn between Handforth and Ringway; and in other places near Wilmalow.

3. **D. BRUNTONI.** Fr. Spring.

Rocks and walls in hilly districts. Alderley Edge.

4. **D. RIGIDULUM.** Fr. Autumn and Winter.

Rocks and walls. Bamford Wood. Chunal near Glossop.

5. **D. TRIFARIUM.** Fr. Winter.

Moist banks and on the ground. Broughton.

6. **D. HETEROMALLUM.** Fr. Autumn and Winter.

Moist banks. Mere Clough. Alderley Edge, abundant.

18. **FUNARIA.**1. **F. HYGROMETRICA.** Fr. Spring.

Walls and hedge banks. Extremely common.

19. **ZYGODON.**1. **Z. CONOIDEUM.**

Trunks of trees. Cotterill Wood, sparingly.

20. **ORTHOTRICHUM.**1. **O. ANOMULUM.** Fr. Spring.

On a wall near the railway bridge, Longsight; and on a wall near Burnage, in both places sparingly.

2. **O. AFFINE.** Fr. Spring.

Trunks of trees near Jackson's Boat. Trees near the right bank of the Mersey, below Northen.

3. **O. DIAPHANUM.** Fr. Spring.

Trees, roofs, and walls. Roof of a shed on the border of Rosthern Mere, sparingly.

4. **O. CRISPUM.** Fr. Spring and Summer.

Trunks of trees in Cotterill Wood, plentiful.

5. **O. PULCHELLUM.** Fr. May.

Walls and trunks of trees. On a wall near Marple Aqueduct (Mr. J. Sidebotham).

6. *O. STRIATUM*. Fr. Spring.

Trunks of trees in Cotterill Wood, sparingly.

21. *NECKERA*.1. *N. PUMILA*. Fr. Winter and Spring.

Trunks of trees in Cotterill Wood.

22. *ANOMODON*.1. *A. VITICULOSUM*. Fr. Winter.

Trees near Cotterill Wood.

23. *FONTINALIS*.1. *F. ANTIPYRETICA*. Fr. Spring.

Rivers and Stagnant ponds. In the river Irwell near Clifton Aqueduct. In a pond at Goat-gate, between Pilkington and Radcliffe, fructifying freely.

2. *F. SQUAMOSA*. Fr. Spring.

Rivulets and mountain streams. Stream in Staly Brushes, plentiful. On stones in the river near Marple Aqueduct.

24. *BARTRAMIA*.1. *B. POMIFORMIS*. Fr. Spring.

Hedge banks in several places. Barlow lane near Hough End. Hedge bank near Altrincham, In the lane leading to Ringway.

2. *B. FONTANA*. Fr. Spring.

Boggy places. Abundant.

3. *B. ARCUATA*. Fr. Autumn and Winter.

Staly Brushes.

4. *B. CALCARIA*. Fr. May.

Wet rocks. Hale Moss, plentiful. Staly Brushes, plentiful.

25. *HOOKERIA*.1. *H. LUCENS*. Fr. Autumn and Winter.

Sides of banks in woods, and among rocks. Mere Clough. Woods near Marple. Boggart-hole Clough.

## 26. HYPNUM.

1. H. TRICHOMANOIDES. Fr. Winter and Spring.  
Walls and trunks of trees. Cotterill Wood, plentiful. Near Marple.
2. H. COMPLANATUM. Fr. Winter and Spring.  
Walls and trees. Trunks of trees in Cotterill Wood and its vicinity. On the wall of Hough End Hall farm yard.
3. H. RIPARIUM. Fr. May—June.  
Banks of rivers, and on rotten wood about ponds and pools. Pits between Chorlton and Withington. Pits between Handforth and Ringway. On rotten wood by the side of a pit in the lane between Ringway Chapel and Cotterill Wood.
4. H. UNDULATUM.  
Heathy places and woods. Common. Alderley Edge, abundant. Arnecroft Wood, near Compstall Bridge, fructifying freely.
5. H. DENTICULATUM. Fr. May.  
Woods and shady places. Common.
6. H. MEDIUM. Fr. May.  
Trunks of trees. Jackson's Boat. Borders of Rosthern Mere, plentiful.
7. H. PULVINATUM. Fr. May.  
Jackson's Boat, along with the preceding. Rosthern Mere.
8. H. SERPENS. Fr. May.  
Trunks of trees and walls. Common.
9. H. POPULEUM. Fr. Winter.  
Bamford Wood.
10. H. SCHREBERI. Fr. Autumn.  
Banks and woods. Abundant.
11. H. CATENULATUM. Barren.  
Wet rocks near Rooley Moor.
12. H. STRAMINEUM.  
Boggy situations. Frequent. Fructifying near Prestwich and Staly Brushes.
13. H. MURALE. Fr. Autumn. •  
On walls near Marple, plentiful.

14. **H. PURUM.** Fr. November—December.  
On the ground, and in hedge banks and woods. Plentiful.  
Near Cotterill Wood, fructifying.
15. **H. PLUMOSUM.** Fr. Autumn.  
Rocks and stones in several places. Ashworth and Bamford  
Woods, abundant.
16. **H. SERICEUM.** Fr. Autumn.  
Trunks of trees and walls. Hough End farm yard wall. Alderley  
Edge. Wall near Marple Aqueduct. Dunham Park wall.
17. **H. SALEBROSUM.** Fr. Autumn.  
In and near Cotterill Wood.
18. **H. NITENS.**  
Knutsford Moor.
19. **H. ALOPECURUM.** Fr. Autumn.  
Shady dells and woods, in various places. Cotterill Wood, abun-  
dant. Dell near Marple Bridge.
20. **H. DENDROIDES.** Fr. October—November.  
Boggy situations. Not unfrequent. Bog near Broughton Church.  
Margin of a pitstead about half a mile north-west of Chorlton,  
abundant. Near Reddish Mill. Hale Moss. Knutsford Moor,  
abundant and fructifying.
21. **H. CURVATUM.** Fr. November—December.  
Rocks and trees. Trunks of trees in Cotterill Wood and its vicinity.
22. **H. MYOSUROIDES.** Fr. October—November.  
Rocks and trunks of trees. Rocks on Alderley Edge.
23. **H. SPLENDENS.** Fr. May.  
Banks and woods. Frequent. Mere Clough. Cotterill Wood.
24. **H. PROLIFERUM.** Fr. Autumn and Winter.  
Heathy banks and woods. Abundant.
25. **H. PRÆLONGUM.** Fr. November—December.  
On walls, rotten trunks of trees, and moist banks. Common.
26. **H. FLAGELLARE.** Barren.  
In the valley of the Dean rivulet, near Rooley Moor. In a rapid  
stream near Bill o' Jacks, Greenfield.
27. **H. BLANDOVII.** Fr. May.  
Knutsford Moor.

28. *H. PILIFERUM*. Fr. December.  
Cotterill Wood.
29. *H. RUTABULUM*. Fr. October—November.  
Banks, trees, and walls. Very common.
30. *H. RIVULARE*. Fr. Autumn.  
Borders of streams, moist banks, and on the ground. Common.
31. *H. VELUTINUM*. Fr. October—November.  
Hedge banks and walls. Frequent.
32. *H. RUSCIFOLIUM*. Fr. Autumn.  
On wood and stones in brooks and rivers. Plentiful.
33. *H. STRIATUM*. Fr. November—December.  
Shady hedge banks and woods, in several places. Hedge banks near Hale Barns. Bank between Handforth and Styall. Cotterill Wood, and its vicinity, plentiful.
34. *H. CONFERTUM*. Fr. November—December.  
Banks, trunks of trees, and walls. Frequent. Heaton Park wall, plentiful. Walls near Marple. Near Prestwich.
35. *H. CUSPIDATUM*. Fr. May.  
Boggy places. Abundant.
36. *H. CORDIFOLIUM*. Fr. May.  
Boggy margins of pits, and in pitsteads. Common.
37. *H. STELLATUM*. Fr. May.  
Boggy situations and walls near Marple Aqueduct. Between Mottram and Compstall Bridge.
38. *H. LOREUM*. Fr. December.  
Rough banks and woods. Cotterill Wood. Alderley Edge. Seal Bark, Greenfield.
39. *H. TRIQUETRUM*. Fr. November—December.  
Hedge banks and woods in several places. In and near Cotterill Wood, abundant.
40. *H. BREVIROSTRE*. Fr. November.  
Bredbury Wood (Mr. J. Sidebotham).
41. *H. SQUARROSUM*. Fr. November—December.  
Heaths and woods. Very common. Fructifying on Alderley Edge, but rarely in other places.

42. *H. FILICINUM*. Fr. May.  
Bogs, and sides of brooks and rivulets. Common.
43. *H. PALUSTRE*. Fr. May.  
Rocks and stones by the sides of rivers and brooks. Frequent.  
On stones in the river near Marple, and near Clifton Aqueduct.
44. *H. FLUITANS*. Fr. Winter and Spring.  
Ponds and boggy places. Frequent. Hale Moss. Lindow Common. In and on the margins of ponds near Withington Hall. Kersal Moor. Rarely in fruit.
45. *H. ADUNCUM*. Fr. April—May.  
Bogs. Frequent. Hale Moss, abundant. On the site of an old reservoir in the valley above Staly Brushes.
46. *H. COMMUTATUM*. Fr. May.  
Wet banks in woods. Mere Clough. Bank of the Goyt. Dell at Coal-bank, at the upper end of Bamford Wood, in great abundance.
47. *H. SCORPIOIDES*. Barren.  
Hale Moss.
48. *H. CUPRESSIFORME*. Fr. October—November.  
Trees, walls, and on the ground. Very common.
- var. *α. vulgare*.  
Very common.
- var. *β. compressum*.  
On the ground, on moors and commons.
- var. *γ. tenue*  
Trunks of trees in Cotterill Wood.
49. *H. CRISTA-CASTRENSIS*.  
This moss was found by Samuel Ogden, of Middleton, about thirty years since, near Whitworth, but the exact locality is not known.
50. *H. MOLLUSCUM*. Fr. November—December.  
Boggy places. Not unfrequent. Hale Moss. In and near Cotterill Wood.

## 27. BRYUM.

1. *B. ANDROGYNUM*. Barren.  
Hedge banks and woods. Rare. Hough End. Lane near Barton.

2. **B. PALUSTRE.** Fr. rare. May—June.  
Common on bogs.
3. **B. PYRIFORME.** Fr. June.  
Rocks and walls. On the wall of Hough End Hall. Rock on the left bank of the Irwell, opposite the new race ground.
4. **B. JULACEUM.** Barren.  
In mountainous places. Rocks by the side of the Irwell, near Clifton Aqueduct.
5. **B. CARNEUM.** Fr. Spring.  
Moist clay banks. Bank above the Irwell, opposite the new race ground.
6. **B. ARGENTEUM.** Fr. Autumn—Spring.  
Roofs of houses, walls, and on the ground. Very common.
7. **B. ROSEUM.** Fr. extremely rare.  
Shady ditch banks and woods. Common.
8. **B. CAPILLARE.** Fr. Spring.  
Rocks and walls. Common.
9. **B. CÆSPITITUM.** Fr. April—May.  
Rocks, walls, and roofs. Common.
10. **B. ALBICANS.** Fr. Spring.  
Moist clay banks. Frequent. Boggart-hole Clough. Sailors' Shore, near Pilkington. Brow side opposite the new race ground.
11. **B. NUTANS.** Fr. May.  
Hedge banks, heaths, and mosses. Abundant.
12. **B. ELONGATUM.**  
Mountainous places. Shawforth, near Rochdale (Mr. J. Horsefield).
13. **B. VENTRICOSUM.** Fr. May.  
Wet rocks in several places. On the side of Marple Aqueduct. Stirrup Wood, near Mottram. Rocks in the valley of the Dean rivulet, near Rooley Moor.
14. **B. BIMUM.** Fr. May.  
Spongy bogs. Hale Moss, plentiful. Pitsteads near Chorlton.
15. **B. INCLINATUM.** Fr. April—May.  
Broughton. Near Ringway. Canal wall near Marple (Mr. J. Sidebotham).

16. **B. CERNEUM.** Fr. Spring.  
On walls. Broughton. Bamford Wood (Dr. Wood).
17. **B. ATROPURPUREUM.** Fr. May.  
On the ground in sandy places. In a large sand-hole at Agecroft.
18. **B. PALLENS.** Fr. Spring.  
Moist clay banks. Common. Sailors' Shore. Boggart-hole Clough.
19. **B. PUNCTATUM.** Fr. Winter and Spring.  
Boggy places. About the roots of trees growing by the side of brooks and rivers. Common.
20. **B. SUBGLOBOSUM.** Fr. November—December.  
Boggy places in hilly districts. Near Rooley Moor, plentiful. Pitstead near Reddish Mill.
21. **B. LIGULATUM.** Fr. Spring.  
Woods and moist banks. Common.
22. **B. ROSTRATUM.** Fr. May.  
Moist shady places. Right bank of the Goyt, below Marple Aqueduct, not unfrequent.
23. **B. HORNUM.** Fr. March—May.  
In woods, on roots and stumps of trees. Abundant.
24. **B. GRACILE.** Fr. April.  
Rocks on Alderley Edge, abundant.
25. **B. AFFINE.** Fr. Spring.  
Knutsford Moor. Hale Moss.

“ And may at last my weary age  
Find out the peaceful hermitage,  
The hairy gown and mossy cell,  
Where I may sit and rightly spell  
Of every star that heaven doth shew,  
And every herb that sips the dew ;  
Till old experience do attain  
To something like prophetic strain.”

MILTON.



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# APPENDIX.

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The following List is supplied by Mr. W. C. WILLIAMSON and Mr. JOSEPH SIDEBOTHAM, assisted by their friends, Messrs. GRAY, GRINDON, and ASHWORTH. It is arranged according to *Hassall's Freshwater Algae*, and *Ralf's Desmidiæ*. To the latter gentleman they are indebted for his kindness in assisting them to distinguish some of the species.

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## ALGÆ FILIFORMES.

### CHARACEÆ.

#### NITELLA. TRANSLUCENS. AG.

Ponds on Baguley Moor.

#### FLEXILIS. AG.

Chorlton fields. Baguley Moor.

#### CHARA. VULGARIS. E. B.

Ponds and ditches. Common.

#### HISPIDA. E. B.

Pools on Eaton Moss.

### BATRACHOSPERMEÆ.

#### BATRACHOSPERMUM. MONILIFORME. HASS.

Ponds at Hough End, Reddish, and Levenshulme.

#### VAGUM. AG.

Pool near Birch Church.

### CHÆTOPHOREÆ.

#### CHÆTOPHORA. ENDIVIÆFOLIA. AG.

Ponds in Victoria Park, and near the top of Upper Brook-street.

**CHÆTOPHORA. TUBERCULOSA. HOOK.**

Chorlton fields.

**ELEGANS. AG.**

Common in pools, on decayed leaves and rushes.

**DRAPARNALDIA. PLUMOSA. AG.**

Chorlton. Hyde.

**GLOMERATA. AG.**

Reddish.

**TENUIS. AG.**

In the brook near Birch Church.

**CONJUGATEÆ.****ZYGNEMA. NITIDUM. AG.**

Pools and ditches. Very abundant.

**COMMUNE. HASS.**

Abundant.

**TYNDARIDEA. STAGNALIS. HASS.**

Common in ditches.

**MOUGEOTIA. GENUFLEXA. HASS.**

In almost every ditch.

**STAUROCARPUS. GRACILIS. HASS.**

Boggy pools. Not uncommon.

**CYSTOSPERMEÆ.****VESICULIFERA. EQUALIS. HASS.**

Eaton Moss.

**ROTHII. HASS.**

Victoria Park. Chorlton.

**BULBOCHÆTE. SETIGERA. AG.**

Ponds in Chorlton fields, parasitic on *Ranunculus aquatilis*.

**MONOCYSTEÆ.****CLADOPHORA. GLOMERATA. DILLW.**

Abundant; attached to piles and stones in streams and canals.

**COLEOCHÆTE. SCUTATA. BREB.**

In ponds. A parasite on aquatic plants. On the leaves of *Nymphaea alba*, in a pond in Victoria Park, close to the church, where it was first discovered as a native of Britain.

**LYNGBYA. FLOCCOSA. HASS.**

Boggy pools. Common.

**MURALIS. AG.**

On garden walks and damp walls, early in the spring.

**SCYTONEMEEÆ.****TOLYPOTHRIX. DISTORTA. KUTZ.**

Adhering to sticks, stems, &c. Very common.

**OSCILLATOREÆ.****OSCILLATORIA. TENUIS. AG.**

Common in ditches.

**TURFOSA. CARM.**

Abundant; floating on the surface of boggy pools.

**NIGRA. VANCH.**

River Tame at Haughton Vale, and many other places.

**MICROCOLEUS. REPENS. HARV.**

Damp road sides. Frequent.

**RIVULARIÆÆ.****RIVULARIA. (RAPHIDIA) VIRIDIS. HASS.**

Pond near Heald Grove, Moss lane.

**NOSTOCHINEÆ.****TRICHORMUS. INCURVUS. ALLM.**

Pond near Heald Grove.

**NOSTOC. COMMUNE. VANCH.**

Charlesworth.

## ALGÆ GLOBULIFERÆ.

## ULVACEÆ.

## ULVA. BULLOSA. ROTH.

Ponds and ditches. Common.

## CRISPA. LIGHT.

Damp walls. Charlesworth village, common.

## ENTEROMORPHA. INTESTINALIS. LUILE.

Common in ditches.

## BOTRYDIUM. GRANULATUM. GREV.

Damp walls, and margins of ponds.

## PALMELLEÆ.

## COCCOCHLORIS. PROTUBERANS. SPRENG.

This, and several other species, are found in abundance, especially in a pond near Heald Grove.

## PROTOCOCCEÆ.

Several species of the genus *Hematococcus* are met with in this neighbourhood, but so little is known of their specific distinctions, that it would be almost useless to enumerate them; they are found generally on wet rocks, damp walls, &c. In abundance at Charlesworth Coombs.

## ALGÆ FIGURATÆ.

## DESMIDIEÆ.

A short introductory remark will perhaps render it unnecessary to specify the exact localities of most of the following species.

The *Desmidiæ* are found in ponds, ditches, and boggy pools; attached like a cloud to the stems of aquatic plants, or floating in detached masses on the surface. Brookhouse Moss, Cheshire; White Moss; the ponds and ditches in Chorlton fields; and about Reddish Vale, are the sources from which the following species have been obtained. The pond near Heald Grove, Moss lane, has been particularly productive of a variety of forms.

HYALOTHECA. DISSILIENS. SM.

DIDYMOPRIUM. GREVILII. KUTZ.

BORRERI. RALFS.

SWARTZII. AG.

SPHÆROZOSMA. VERTEBRATUM. BREB.

EXCAVATUM. RALFS.

MICRASTERIAS. ROTATA. GREV.

EUASTRUM. OBLONGUM. GREV.

ANSATUM. EHR.

This, and some others in the present list, were found by Mr. Williamson in the stomachs of *Anodon Anatina*, from Chorlton fields.

PECTINATUM. BREB.

ELEGANS. BREB.

COSMARIUM. PYRAMIDATUM. BREB.

CRENATUM. RALFS.

BOTRYTIS. BORY.

MARGARITIFERUM. TURP.

ORNATUM. RALFS.

MONILIFORME. TURP.

CUCURBITA. BREB.

XANTHIDIUM. FASCICULATUM. EHR.

ARTHRODESMUS. CONVERGENS. EHR.

STAURASTRUM. TRICORNE. BREB.

GRACILE. RALFS.

POLYMORPHUM. BREB.

MUTICUM. BREB.

DIDYMOCLADON. FURCIGERUS. BREB.

TETMEMORUS. GRANULATUS. BREB.

PENIUM. DIGITUS. EHR.



**PENIUM. BREBISSEI. MENEGH.**

**CLOSTERIUM. LUNULA. MULLER.**

**ACEROSUM. SCHRANK.**

**TURGIDUM. EHR.**

**MONILIFERUM. BORY.**

**LEIBLEINII. KUTZ.**

**DIANÆ. EHR.**

**STRIOLATUM. EHR.**

**JUNCIDUM. RALFS.**

**LINEATUM. EHR.**

**RALFSII. BREB.**

**ROSTRATUM. EHR.**

**ANKISTRODESMUS. FALCATUS. CORDA.**

**PEDIASTRUM. TETRAS. EHR.**

**HEPTACTIS. EHR.**

**BIRADIATUM. MEYEN.  $\beta$ .**

**PERTUSUM. KUTZ.**

**NAPOLIONIS. TURP.**

**BORYANUM. TURP.**

**GRANULASUM.**

**ELLIPTICUM. EHR.**

**SCENEDESMUS. QUADRICANDA. TURP.**

**DIMORPHUS. TURP.**

**OBLIGUUS. TURP.**

**OBTUSUS. MEYEN.**

## ALGÆ SILICATÆ.

## DIATOMACEÆ.

## ACHNANTHES. MINUTISSIMA. KUTZ.

Pond in the Botanic Gardens.

## DIANTOMA. VULGARE. BORY.

Common.

## ELONGATUM. AG.

Common.

## MELOSEIRA. VARIANS. AG.

Very common.

## TABELLARIA. FENESTRATA. LYNG.

Near Hyde.

## FRAGILARIA. PECTINALIS. LYNGB.

Common.

## HYEMALIS. LYNGB.

In wells.

## RHABDOSOMA. EHR.

Common.

## EUNOTIA. ARCUS. EHR.

In ferruginous ditches near the Independent College.

## MERIDION. CIRCULARE. AG.

## GOMPHONEMA. ACUMINATUM. EHR.

Common in ditches and streams.

## TRUNCATUM. EHR.

Common in ditches and streams.

## DICHOTOMUM. KUTZ.

Common in ditches and streams.

## MINUTISSIMA. AG.

Common in ditches and streams.

**EXILARIA. CAPITATA. EHR.**

**ULNA. EHR.**

**FASCICULATA. KUTZ.**

Common.

**LUNARIS. EHR.**

Chorlton fields. Rare.

**COCCONEMA. LANCEOLATUM. EHR.**

**CYMBIFORME. EHR.**

**FRUSTULIA. VIRIDIS. KUTZ.**

**SPHINCTOCYSTIS. LIBRILIS. HASS.**

**SURIRELLA. BISERIATA. BREE.**

Chorlton fields. Rare.

**GYROSIGIMA. HIPPOCAMPA. HASS.**

**NAVICULA. PHENICENTERON. EHR.**

**PLATYSTOMA. EHR.**

It is probable that we possess most of the species of this genus, specimens are found in many of our ponds which agree in character with the various named and published forms.







